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Lithotomia Douglaſſiana:

OR,

A New METHOD

OF

Cutting for the *STONE*;

FIRST PRACTISED BY

John Douglas Surgeon, F. R. S.

AND

LYTHOTOMIST to the INFIRMARY at *Weſtminſter:*

TO WHICH IS ADDED,

What has been written by the moſt Judicious ROSSETUS, and the learned PIETREUS, on the ſame Subject.

Illuſtrated with ſeveral COPPER PLATES.

Citò, tutò, jucundè.

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ions

To the HONOURABLE, REVEREND, and WORTHY, the

GENTLEMEN and CLERGY,

TRUSTEES of the INFIRMARY,

In PETTY FRANCE *WESTMINSTER:*

TO

Dr. *Alexander Stewart* AND Dr. *William Wasey* } PHYSICIANS:

Ambrose Dickens AND *Claudius Amyand* } ESQUIRES,

Serjeant SURGEONS to His MAJESTY, and Principal SURGEONS to the said HOSPITAL.

THIS

TREATISE

Is humbly DEDICATED by,

GENTLEMEN,

Your most Obedient

and Obliged

humble Servant,

Jo. Douglas.

ADVERTISEMENT.

Next Month will begin

A Course of *Anatomy*, *Chirurgical Operations*, and *Bandages* (according to my printed *Syllabus*) by the Author, at his House in *Fetter-Lane*.

Oct. 31. 1722.

Lithotomia Douglaſſiana: &c.

INTRODUCTION.

IT is univerſally allowed, that amongſt all the Diſeaſes with which Mankind are afflicted, there is none more terrible than the *Stone* in the *Bladder*; and amongſt all the Chirurgical Operations now in Uſe, there are none ſo painful, dangerous, and uncertain, as the common Operations which are made in order to cure it. Therefore any Improvement of this moſt dangerous, though common Operation, cannot but be gratefully received by all thoſe who have the Misfortune to be troubled with this

cruel Diſeaſe, as alſo by all Lovers and Encouragers of uſeful Diſcoveries.

SECT. I.

Diagnoſtick Signs of the Stone in the Bladder.

THE Neceſſity of being certain what a Perſon ails in all Caſes as well as the preſent, before we propoſe the Method of Cure, is very well expreſſed by the excellent *Hildanus*, in the following Words.

Non abs re, gravique Cauſa, divinus ac celeberrimus ille Chirurgorum parens Hippocrates, Lib. de Arte, ſic ſcriptum reliquit. Chirurgus ſi ſufficerit ad cognoſcendum, ſufficit quoque ad ſanandum. Quibus Verbis Hippocrates ſolertes quoſlibet Chirurgos hortatur, ut ante omnia ſummum ſtudium & diligentiam, ad conſequendam exactam & accuratam morbi cognitionem adhibeant priuſquam de inſtituenda ipſius curatione quicquam intendant aut cogitent. Ac ſane, ſi aliter procedat Chirurgus, tardè, ſi unquam, optatum ſcopum attingere, ægrumque priſtinæ ſuæ Valetudini reſtituere poterit.

" It is not without Reaſon, and ſufficient Cauſe, that " the divine, and moſt celebrated Father in Chirurgery, " *Hippocrates, Lib. de Arte,* has thus left it upon Record : " If a Surgeon is able to find out, he will alſo be able to

" cure

" cure the Diſeaſe, by which Expreſſion *Hippocrates* " exhorts every honeſt and induſtrious Surgeon, that he " would always endeavour, with the utmoſt Care and " Diligence, to acquire a perfect and exact Knowledge " of the Diſtemper, before he propoſes, or ſo much as " thinks of ſetting about the Cure. And certainly, if " a Surgeon goes otherwiſe to Work, he will very rare- " ly, if ever, ſucceed.

The Diagnoſtick Signs of the *Stone* in the *Bladder*, are of two Sorts; *viz.* Thoſe they call common or equivocal, becauſe they may proceed from ſeveral other Cauſes beſides the *Stone*: And thoſe that are proper or univocal, becauſe they can only proceed from the *Stone*.

The Equivocal Signs are,

1. A great Pain and Difficulty in making Water, which is encreaſed or diminiſhed according to the Poſition and Figure of the *Stone*.

2. A Weight on the *Perinæum* or *Rectum*, which is more or leſs according to the Bigneſs of the *Stone*.

3. A frequent Inclination, without Ability, to make Water, and if any paſſes it is by Drops, and with great Pain.

4. They frequently make bloody Water.

5. They have often involuntary Erections.

6. A Pain in the Glans and *Frænum*, which they endeavour to eaſe by pulling and handling it.

7. Some, when they make Water, croſs their Legs, bend their Heads towards the Ground, and with their Hands preſs on their Belly, *&c.*

8. Some are troubled with a *Prolapſus Ani.*

9. Some have a *Teneſmus.*

10. The Stream of Urine is often ſtopt of a ſudden, by the Stone falling on the Paſſage.

11. They cannot ride in a Coach or on Horſe-back without great Pain.

12. They are relieved by no Medicines, but very often made worſe.

Theſe, or ſome of them, make us firſt ſuſpect that a Perſon is troubled with the *Stone*, nevertheleſs, we cannot depend upon them, becauſe they alſo happen in Inflammations, Ulcers, and Excreſcences of the *Bladder* or *Urethra*, and therefore we muſt have recourſe to that which is infallible, *viz.* the *Catheter.*

How to ſearch with the Catheter.

There is ſuch Difficulty in paſſing the *Catheter* in Males of all Sizes, (occaſion'd by the Length and Figure of the *Urethra*, Obſtructions in the Paſſage, ſuch as the Verumontanum, Excreſcences, preternatural Straitneſs, Inflammation of the Sphincter, bad Poſition of the Body, *&c.*) that I think it cannot be taught by Words, and ought never to be attempted,

attempted, but by thoſe who have a perfect Idea of the natural Figure and Structure of the Parts, and who have been well inſtructed how to manage the Inſtrument.

There is not only great Art and Dexterity required to paſs the *Catheter*, but alſo to diſcover the *Stone* (eſpecially when ſmall) after it is paſſed, which is only to be acquired by good Inſtructions and frequent Practice.

As the paſſing the *Catheter* in Males is ſo difficult that it cannot be expreſſed; ſo the paſſing of it in Females is ſo eaſy it is not worth while to deſcribe it.

The *Stone* being diſcovered by the *Catheter*, there is no other Method to get rid of it yet known, but by Cutting, whatever Impoſtors pretend, or credulous People believe.

We ought not only to be ſatisfied of the Exiſtence of a *Stone* in the *Bladder*, but alſo of its Bigneſs and Figure; (becauſe it will enable us to judge how big the Wound in the *Bladder* ought to be made) both which are diſcovered by introducing our Fingers into the *Anus* or *Vagina*, and uſing them as directed in Cutting on the Gripe.

SECT. II.

Whether the Stone *ever adheres to the* Bladder, *as is ſuppoſed.*

THE dreadful Idea of the *Stone*'s adhering to the *Bladder*, does ſo diſturb and fright ſome Patients, that they rather chooſe to die in their moſt exquiſite Pains, than ſubmit to the Operation.

In order to cure this imaginary Diſeaſe, which is much more fatal than the *Stone* it ſelf, I ſhall evidently prove, that the *Stone* is very rarely, if ever, attached to the *Bladder*, or involved in a Membrane, by the following Arguments, *viz.*

1. Becauſe it is evident from Experience, that leaden Bullets, *&c.* have lodged in ſeveral Parts of our Bodies for many Years, and yet have never been found to adhere to the Parts which they touched all that while.

2. Becauſe we have no authentic Hiſtories of any that ever died, in whoſe *Bladder* the *Stone* was found to adhere.

3. Becauſe the moſt experienced *Lithotomiſts*, ſuch as *Tolet*, *Rau*, *Cyprianus*, &c. deny that ever they met with any ſuch Thing, in all their Operations.

4. But ſuppoſing it was poſſible for the *Stone* to adhere to the *Bladder* if it kept always ſtill in the ſame Place; yet its conſtant Motion, from its firſt Formation, upon every Alteration of the Poſition of the Body, would certainly hinder it.

5. Be-

5. Becauſe if it adhered to the Fund of the *Bladder*, it would always pain them moſt when they ſtood upright, and when the *Bladder* was fulleſt of Water: If to the right Side, it would pain them moſt, when they lay on the left; and *e contra*; but we never obſerve any ſuch Symptoms.

6. Becauſe it is never talked of, except, when the Operator happens to pull out a Part of the *Bladder* along with the *Stone*, and then they immediately pretend the *Stone* adhered: But if you throw that very *Stone* into a Baſon of Water, you will ſee it clear it ſelf in a little Time, of all the Blood and Membranes, without perceiving any Filaments to go betwixt the *Stone* and Membrane, which muſt have been, if they had cohered.

7. Becauſe the Liquor which is continually diſcharging from the Glands in the innermoſt Coat (to defend the *Bladder* it ſelf, from the Acrimony of the Urine) makes an Adheſion impoſſible.

8. If the *Stone* was covered with a Membrane, it would hinder it from pricking, and cauſing ſuch intolerable Pain, as uſual; and alſo prevent its Increaſe, and ſound, when touched with the *Catheter*.

From whence it is evident, that the Adheſion of the *Stone* to the *Bladder*, is only an imaginary Notion, invented to skreen the Miſtakes of ignorant, or heedleſs Operators. The moſt judicious *Roſſetus* is alſo of the ſame Opinion.

Sæpe

Sæpe contingat prehenſam his, atque illis inſtrumentis cum calculo partem veſicæ non paucam lacerari, & tam conſpicue cum eo agnitam extrahi, ut inde neceſſarius arguatur ſucceſſiſſe interitus: cujus maleficii crimination em quia aliter effugere nequeunt, eludunt ſæpè artifices compoſito ad id figmento pelliculæ ſcilicet neſcio cujus calculos treſcentes veſtientis.

Quid tunc veſicali Sectione opus eſſet, ſi calculus Membranâ veſtiretur? nam ea molliculo lævore ſuo, calculi cum veſica contactum, attritionemque prohiberet, & conſequenter dolorem auferret, qui tamen tunc eſt intolerabilis, ut ex eo ſolo maxime patet, quod miſeros calcularios in hoc Sectionis præcipitium, velint nolint adigit. Sed hoc præcipue (illis ipſis Judicibus) eorum mendacium aperte convincit, quo illa ſua Homicidia excuſant. Omnis enim calculus quem extrahunt, ab iis priuſquam extrahatur ſolet deprehendi ejus ad Catheterem ſonoro illiſu. (Alioquin ne id quidem tentant) at nullus Membrana circum-veſtitus calculus poteſt deprehendi eo ad Catheterem illiſu ſonoro, (interpoſita enim Membrana id vetat.) Nullus igitur ab iis extrahitur Membrana circum-veſtitus calculus, quicquid nobis contra garrire velint.

" It often happens that a Part of the *Bladder* being " laid hold of by the Forceps, is torn away with the " *Stone*, the certain Conſequence of which is Death. " The Reproach of which Miſmanagement, they often " evade, by pretending that the *Stone* was involved in a " Membrane.

" Why then ſhould we Cut for the *Stone*, if it is " thus involved? For the Softneſs of the Membrane " would prevent the *Stone*'s touching and pricking the " *Bladder*, and conſequently the Pain; which neverthe- " leſs, we find to be ſo intolerable, as to force theſe mi- " ſerable Perſons to run the Riſque of the Operation.

" But this eſpecially, (they themſelves being Judges,) " clearly diſcovers the Fraud whereby they excuſe their " fatal Blunders; for that before they cut, they always hear " the *Catheter* ſtrike againſt the *Stone*, otherwiſe they " would never attempt the Operation; and no *Stone* in- " volved in a Membrane will ſound, when touched with " the *Catheter*, becauſe the Membrane hinders it.

" Therefore notwithſtanding all their Pretences, they " never extracted any *Stone* covered with a Membrane.

SECT. III.

Whether it is poſſible to diſſolve a confirmed Stone *in the* Bladder *by Medicines, as is pretended?*

THE Chymiſts boaſt, that they have ſuch miraculous Remedies, that ſlighting all the Mutations which other Medicines undergo, in paſſing through the Body, ſtill preſerve a peculiar Virtue, by which they are capable to break, or diſſolve the moſt firm and ſolid *Stone* in the *Bladder*: By which Pretences, they not only pick the

Pockets of the unwary, but often deſtroy their Conſtitutions to ſuch a Degree, that it is too late to attempt the Operation when they have done; of which I have ſeen Inſtances.

If there really were ſuch Medicines to be purchaſed at any Rate, it would be moſt barbarous to expoſe People to the Pain and Danger of being Cut; but ſince no ſuch Medicine has as yet appeared (notwithſtanding all their Pretences) we cannot be blamed for continuing this Operation, until this moſt deſirable Secret is diſcovered; becauſe, though ſome dye after it, many more are relieved from moſt intolerable and laſting Pains, and reſtored to perfect Health.

Ars, Medicamenta ad frangendum calculum quam plurima uſurpaverit, quæ tamen (ut Experientia comprobat) pollicentur quidem multa, præſtant autem nihil; ideoque ſola Chirurgia profuit, quantumcunque ſæva, quantumque periculoſa ſit. Aquapend.

" There have been many Things propoſed to diſſolve the " *Stone* in the *Bladder*, but (as Experience ſhews) they " promiſe a great deal, but perform nothing: There- " fore Cutting is the only Remedy, though never ſo cruel " and dangerous.

This Opinion is alſo confirmed by the unprecedented Experiment lately made by ſome of our Cutters, who (at the ſame Time that they ſtrenuouſly oppoſed my Operation, though they had ſeen five of the firſt ſix that were Cut, recover perfectly) took a poor Boy, and delivered him

over to the Care of a couple of profeſſed Quacks, who had the Modeſty to aſſert they had a Medicine, which would infallibly diſſolve the moſt confirmed *Stone* in the *Bladder*. But theſe Gentlemen having publiſhed a moſt ingenious and elegant Account, of the bad Succeſs of theſe Pretenders, in one of the *Poſt Boys*, in *April* laſt; I ſhall refer the Curious to it.

SECT. IV.

Why thoſe who have the Stone *in the* Bladder, *ſhould not defer the Operation.*

THOSE who are ſatisfied that they have a *Stone* in the *Bladder*, ought not to defer the Operation for any conſiderable Time.

1. Becauſe there is no Hopes of getting rid of it, any other Way.

2. Becauſe it will always grow bigger, and perhaps more rugged, in Proportion to which, the Danger of extracting it encreaſes.

3. Becauſe it is apt to occaſion Ulcers, Excreſcences, *&c.* in the *Bladder*, which it is very difficult, if poſſible to Cure.

4. Becauſe it ſo breaks and weakens their Conſtitutions that they will not be able to undergo the Operation, with any reaſonable Proſpect of Succeſs, *&c.*

SECT.

SECT. V.

Prognoſtick Signs.

THE Prognoſtick Signs are drawn from the Age, and Conſtitution of the Patient, Size and Number of the *Stones*, Standing of the Diſeaſe, Diſeaſes conjoined, *&c.* In Females the Operation ſucceeds with much more Eaſe, and much leſs Danger, than in Males.

SECT. VI.

Proper Seaſons of the Year for this Operation.

THE Spring and Autumn are indiſputably the moſt proper; but if the Patient is frequently in great Pain, it is cruel, nay barbarous, to defer it, for the Reaſons above-mentioned.

SECT. VII.

The Preparation of the Patient, before the Operation.

THEY are to be bled, purged, *&c.* as their Conſtitutions will bear, or their Caſe requires, and always to take a Clyſter the Night before.

SECT. VIII.

The various Methods of cutting for the Stone.

THERE being various Methods of extracting the *Stone*, propoſed by different Perſons: It is certainly the Intereſt of the publick, to be well ſatisfied which of them is to be preferred.

In Order to anſwer this neceſſary Queſtion, I ſhall,

I. Recite the various Methods that have been propoſed.

II. Make ſome Obſervations on thoſe that are ſtill in Uſe.

III. Shew that the Method I here propoſe, is performed with much more Eaſe, Speed, and Safety, than any of them.

The various Methods are,

1. The *Ægyptians.*
2. *Celſus*'s.
3. *Marianus*'s.
4. *De Franco*'s.
5. *Frere Jacques.*
6. Dr. *Rau*'s.
7. *Roſſetus*'s Scheme.
8. *Dionis*'s Scheme,

I. The *Ægyptian* Method is deſcribed by *Proſper Alpinus,* to whom I refer the Curious.

II. The Method of Operating uſed by the antient *Grecians, Latins,* and *Arabians,* was firſt deſcribed by *A. C. Celſus,* whence it was called *Celſica:* Afterwards *Apparatus Minor,* and now Cutting on the Gripe.

Parts concerned in this Operation.

The Parts concerned are,

1. The Skin.
2. The Fat.
3. The *Erector Penis.*
4. Some conſiderable Arteries.
5. The *Levator Ani.*

6. The *Rectum.*
7. The *Proſtatæ.*
8. The *Sphincter Veſicæ.*
9. The *Veſiculæ Seminales.*
10. The Body of the *Bladder,* Muſcles of the *Abdomen* &c.

How to make the Operation.

THE Operation is made by introducing the fore and middle Fingers of the left Hand into the *Anus,* as high as poſſible; at the ſame Time get an Aſſiſtant to lay a folded Napkin on his Belly, and preſs it downwards with his Hands, a little above the Region of the *Bladder,* which forces the *Stone* towards its Neck: Then preſs your Fingers in the *Anus* againſt the *Gut* and *Bladder,* and ſo endeavour to ſecure the *Stone* between your Fingers and the *Perinæum,* then preſs it outwards, ſo as you can ſee and feel the Tumour, then make an Inciſion upon it the full Length of the *Stone.* Then extract it with your Fingers or the Crochet, *Tab.* 1. *Fig* 2. then introduce your Finger, or the Button *Fig.* 7. to ſee if there are any more, which extract as before, or with a Pair of Forceps.

This Operation is ſtill practiſed by ſome on ſmall Bodies, but cannot ſo eaſily be done on large ones, becauſe our Fingers are too ſhort to bring the *Stone* into the deſired Place.

The

The Inconveniencies of this Method.

1. THE violent Compreſſion they are often obliged to make on the Belly (before they can ſecure the *Stone* between their Fingers and *Perinæum*) Contuſes the Parts, cauſes great Pain, and ſometimes Inflammations, Fevers, *&c.*

2. When the *Stone* is rough, it is troubleſome, painful, and tedious to make the Inciſion upon it.

3. There happen frequently great *Hæmorrhagies.*

4. The *Rectum*, *Veſiculæ Seminales*, and *Bladder*, are contuſed, pricked, or lacerated, by being preſſed ſo hard againſt the *Stone*, and ſometimes the *Sphincter*, as well as the forementioned Parts, is cut by the Knife, or lacerated by the *Stone*: Whence Incontinency of Urine, Impotency, Fiſtula's, *&c.*

Quam periculoſa ſit Operatio iſta, ſapiens quivis facilè colligere poterit, ubi perpenderit, quod in ea Chirurgus, facile partes collo veſicæ adjacentes, vel ipſum collum, imo quandoque etiam ipſum Veſicæ muſculum perfodere poſſit, unde quidem ingens Hæmorrhagia, &c. *expectanda, deinde etiam verendum eſt, ne æger Urinam retinere nequeat, aut Fiſtula in parte affecta remaneat.*

Quanta autem incommoda hæc ægro, quantum verò contemptum & dedecus Lithotomo afferant, unicuique facile colligere licet. Hildan.

" The

" The Danger of this Operation every wiſe Man will " eaſily ſee, who conſiders that in performing it the Sur- " geon may very eaſily cut through the Parts about the " Neck of the *Bladder*, even the Neck it ſelf, and ſome- " times the very *Sphincter*, from whence great *Hæmor-* " *rhagies*, &c. are to be expected.

" Beſides, it is to be feared that the Patient will ever af- " terwards be troubled with an Incontinency of Urine, " Fiſtula, *&c.*

" It is eaſy to imagine how great an Inconveniency theſe " would be to the Patient, and what a Reproach and Shame " to the *Lithotomiſt.*

III. *Marianus*'s Method.

This Method of Operating was Invented and practiſed by *Jo. De Romanis*, but was firſt publiſhed by his Diſciple *Marianus Sanctus Barolitanus*, whence it was called *Mariana*, afterwards *Apparatus Major* (becauſe of the great Number of Inſtruments uſed in making it) and now *Cutting on the Staffe.*

Parts concerned in this Operation.

THE Parts concerned are of three Sorts, *viz.*

1. Thoſe which are Cut, *viz.* the Skin, *Accelerator Muſcle*, and *Cavernous Urethra.*

2. Thoſe which are Dilated or Lacerated, *viz.* The Membranous *Urethra*, and *Sphincter* of the *Bladder*.

3. Thoſe that are liable to be injured becauſe of the nearneſs of their Situation, *viz.* The Body of the *Bladder*, the *Veſiculæ Seminales*, the *Proſtatæ*, the *Verumontanum*, the *Rectum*, &c.

How to make the Operation.

THIS Operation has been hitherto moſt in Uſe, and is performed after the following Manner:

They firſt paſs the Staffe *Tab.* 1. *Fig.* 1. into the *Bladder*, then they preſs it againſt the Bulb of the *Urethra*, and then make an Inciſion upon it with the *Lithotome*, *Fig.* 2. from two, to four Inches long, according to the Bigneſs of the Patient, that done they introduce the *Gorgeret*, *Fig.* 3. or the two *Conductors*, *Fig.* 4. 5. then they withdraw the *Staff*, and paſs the *Forceps*, *Fig.* 6. on the *Gorgeret*, or between the *Conductors*, which by Reaſon of the Streightneſs and Length of the Paſſage, requires a great deal of Force, then they withdraw the *Director*, and endeavour to charge the *Stone* in the *Forceps*, but if that cannot be done in ſome Time, they withdraw the *Forceps*, and introduce the Button, *Fig.* 7. and upon it the curved *Forceps*, *Fig.* 8. (madly fancying that the *Stone* is ſituated above the *Os Pubis*, or about the Fund of the *Bladder*,) then the *Stone* being at length charged in either of theſe *Forceps*, they endeavour to extract it, but if they find that

impracticable, (either from the Bigneſs, Figure, or hold they have got of the *Stone*,) they quit their hold, and withdraw the *Forceps*, and introduce the Button again, and upon that the *Dilators*, *Fig.* 9. with which they dilate the Wound, accordingly; then they introduce the *Forceps* again as before, and charge them with the *Stone*, and then extract it, (which I have ſeen take all the Force of a ſtrong Man) then they introduce the Button again to ſearch if there are any more, which they extract as before; but if they break in extracting, the ſmall Pieces muſt be ſcooped out with the Scoop, *Fig.* 10. and the large Ones turned out with the Crochet, *Fig.* 11. or extracted with the *Forceps*, as before.

The Inconveniencies of this Method.

THE Situation of the Parts, Inſtruments, and Method of Operating being deſcribed, it will not be difficult to Account for the Danger, Laborioufneſs, and frequent bad Conſequences of this Operation.

That this is the moſt Dangerous of all Chirurgical Operations, will appear from a Computation of thoſe who do, and do not eſcape after it.

That it is the moſt Laborious of all Operations, every one muſt be perſuaded, who hath either made, or ſeen any Number of theſe Operations performed.

The Danger and Laborioufneſs of this Operation are cauſed,

1. By

1. By the Length and Streightneſs of the Paſſage thro' which the *Forceps* muſt paſs into the *Bladder*, and when charged with the *Stone* muſt return back again.

2. By the great Number, and neceſſary Largeneſs of the Inſtruments uſed, *Tab.* 1. and the frequent Occaſion to introduce and retract them.

3. By the Number, Figure, and Bigneſs of the *Stones*, Force required to extract them, *&c.*

Whence great *Hæmorrhagies*, violent Pain, Contuſion, and Laceration of the Parts, Convulſions, Mortification, and Death.

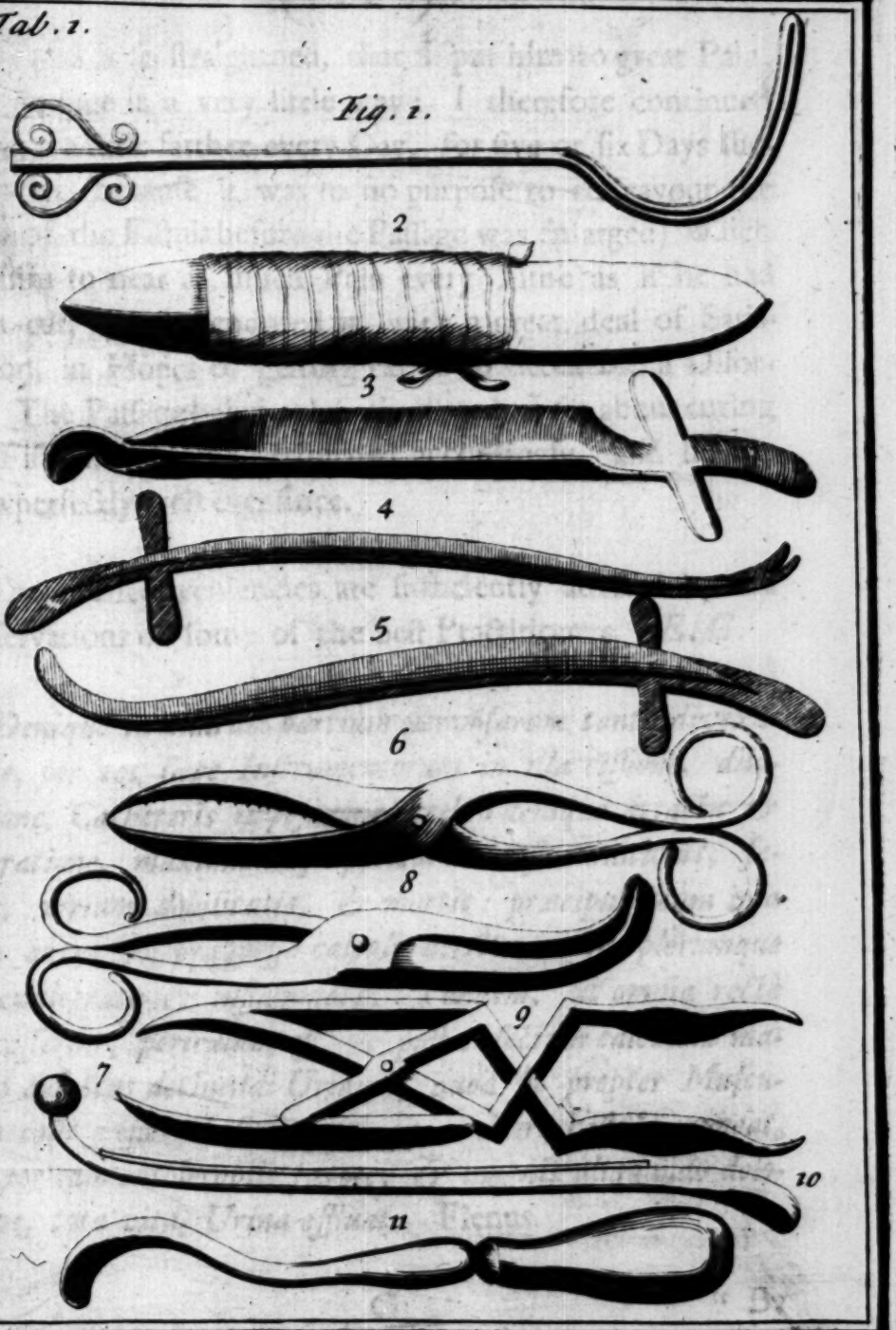
The bad Conſequences which often attend this Operation, (in thoſe which eſcape with Life) are *Incontinency of Urine*, Impotency, Fiſtula's, *&c.* which every one muſt be ſatisfied off, that have ſeen any Number of thoſe that have undergone the Operation.

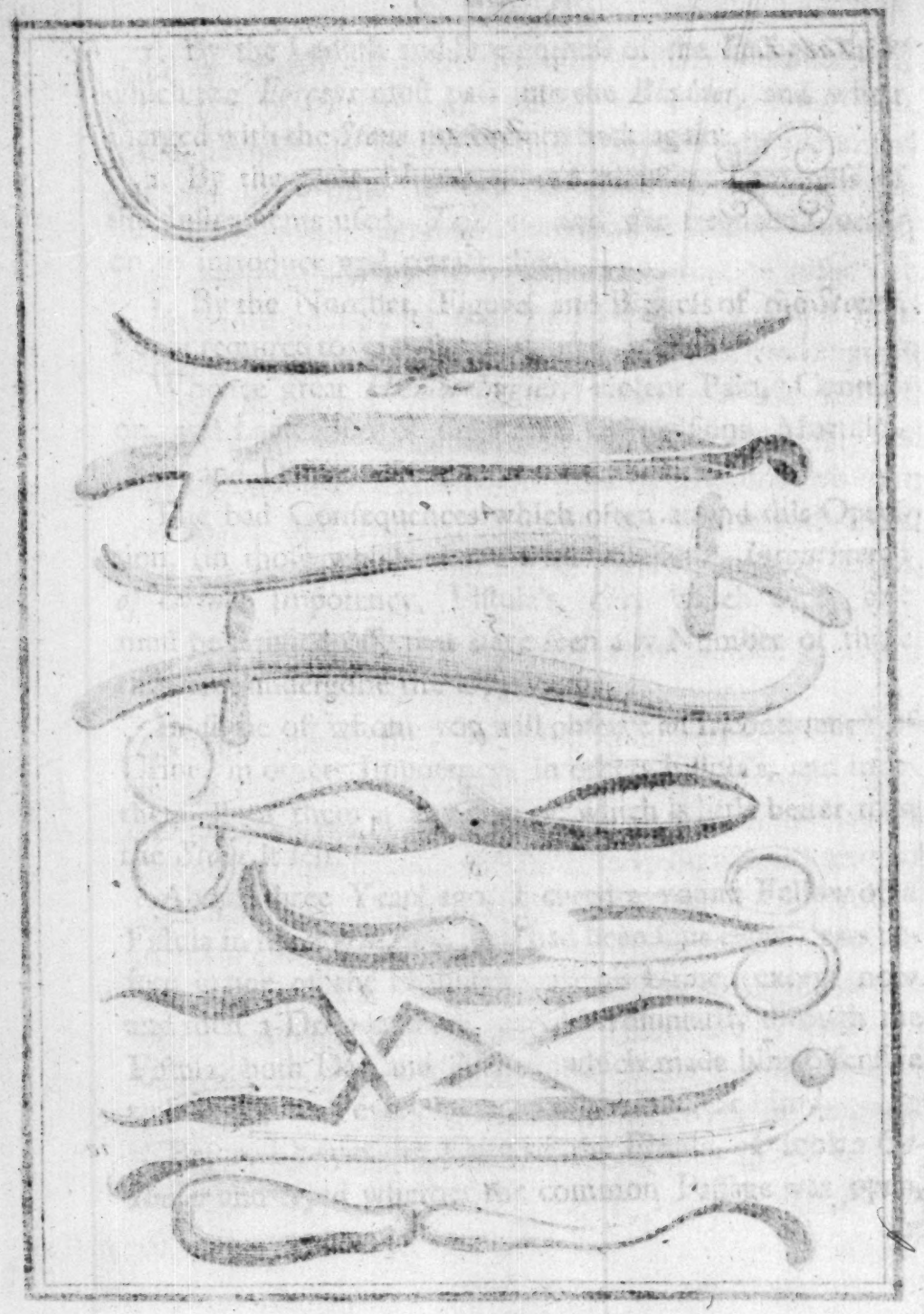
In ſome of whom you will obſerve an Incontinency of Urine, in others Impotency, in others Fiſtu[illegible]s, and in others all of them; any one of which is little better than the *Stone* it ſelf.

About three Years ago, I cured a young Fellow of a Fiſtula in the *Perinæum*, that had been Cut eight Years before in one of the Hoſpitals; all his Urine, except now and then a Drop or two, paſs'd involuntarily through the Fiſtula, both Day and Night, which made him offenſive to himſelf, and every one elſe that was near him.

Before I began the Cure of the Fiſtula, I took a *Catheter* and tryed whether the common Paſſage was open, but

Tab. 1.





but found it ſo ſtraightned, that I put him to great Pain, to introduce it a very little way: I therefore continued to paſs it a little farther every Day, for five or ſix Days ſucceſſively, (becauſe it was to no purpoſe to endeavour the Cure of the Fiſtula before the Paſſage was enlarged) which put him to near as much Pain every Time as if he had been cut, yet he endured it, with a great deal of Satisfaction, in Hopes of getting rid of ſo deteſtable a Diſorder. The Paſſage being at length dilated, I ſet about curing the Fiſtula, which I performed accordingly, and he has been perfectly well ever ſince.

Theſe Inconveniencies are ſufficiently atteſted by the Obſervations of ſome of the beſt Practitioners. *E. G.*

Denique in illarum partium nervoſarum tanta divexatione, per tot ſæpe Inſtrumentorum in illa ciſſione, dilatatione, Catheteris impoſitione, crebro denique attactu & laceratione, maximum eſt periculum inflammationis, febris, virium debilitatis, & mortis: præcipuè, cum ipſa jam antea ex prægreſſo calculi attritu veſica plerumque ſit exulcerata & inflammata. Tandem, ut omnia rectè ſucceſſerint, periculum eſt, ne poſt exſectum calculum maneat defectus detinendi Urinam, quod ſit propter Muſculum colli veſicæ læſum, vel ex vulnere Fiſtula maneat, & per eam intolerabili fœtore, & magnis aliquando doloribus, tota vita, Urina effluat. Fienus.

" By the frequent Introduction, and Retraction of ſo
" many Inſtruments, after the Inciſion is made, theſe
" nervous Parts are dilated, irritated, and lacerated;
" whence Inflammation, Fever, loſs of Strength, and
" Death; eſpecially if the *Bladder* was inflamed, or ul-
" cerated before, by the Aſperities of the *Stone*. But
" ſuppoſing the Operation ſucceeds very well, yet you
" may have an Incontinency of Urine afterwards, becauſe
" the *Sphincter Muſcle* is injured, or the Wound turns
" to a Fiſtula, through which the Urine flowing ever after-
" wards, occaſions always an intolerable Stench, and ſome-
" times great Pain.

Ingens ac magnus calculus ut per collum veſicæ extrahatur, propter ejus anguſtiam longum requirit tempus, interim æger ingentibus affligitur doloribus, veſica, ipſiuſque fibræ dilacerantur, ſanguis copioſe profluit, vires diſſolvuntur, maximoque cum cruciatu æger vel in ipſa operatione aut paulo poſt extinguitur. Hildan.

" When a large *Stone* is extracted through the Neck
" of the *Bladder*, becauſe of its Straightneſs, it takes up
" a long Time; in the mean Time, the Patient ſuffers in-
" tolerable Pain, the *Bladder* and its *Fibres* are tore, there
" is a great Flux of Blood, loſs of Strength, and the Pati-
" ent, by reaſon of the great Torture, dies, either in or
" ſoon after the Operation.

L'on peut faire reflexion que dans le temps de la Lithotomie par le grand appareil, on incise l'uretre en un endroit éloigné de plus de quatre travers de doigts du Sphincter de la veſſie, & que les reſervoirs de la Semence n'en peuvent pas être bleſſez ; mais ſi la Pierre ſe trouve groſſe, fort âpre & heriſſée, la grande laceration, & la dilatation pourront froiſſer & endommager les veſicules Seminaires, les Muſcles érecteurs, & ceux qui aident à l'éjaculation, car les uns & les autres ſont ſituez proche la route que tiennent les Inſtrumens & la Pierre, lorſqu'elle eſt tirée par cette façon d'operer. Tolet.

" They may obſerve that in cutting on the Staffe, they " cut the *Urethra*, in a Place more than four Fingers " Breadth diſtant from the *Sphincter* of the *Bladder*, and " that the *Veſiculæ Seminales*, cannot be wounded by it. " But if the *Stone* is large and rugged, the great Lacera- " tion and Dilatation of the Parts may bruiſe or deſtroy " the *Veſiculæ Seminales*, *Erector Muſcles*, and thoſe " which aſſiſt in Ejaculation, for they are all ſituated near " the Rout, through which the Inſtruments and *Stone* " paſs, in this Method of Operating.

Lorſque pour tirer la Pierre hors de la Veſſie on fait Inciſion au perinée, on coupe les deux Muſcles accelerateurs, on ouvre l'urethre, & l'on pouſſe par le col dans le corps de la veſſie une tenête dont on charge la pierre que l'on tire avec cet Inſtrument par la playe de l'ure-

thre.

thre. Or comme le Diametre du Canal interieur du col de la Veſſie eſt beaucoup plus petit que le Volume que forment enſemble la tenéte & la pierre; de là Vient qu'on ne peut la tirer qu' avec de Violents efforts: Ce qui cauſe au Col & au corps de la Veſſie une Contuſion & un dèchirement conſiderable, ſuivis quelque fois de la Mort, ou d' une Incontinence d' Urine, ou d' une Fiſtule, par la quelle ceux qui èchapent de l' Operation perd involontairement leur Urine. Mery.

" When they make an Inciſion on the *Perinæum*, in " order to extract the *Stone* out of the *Bladder*, they " cut the *Accelerator Muſcle*, and *Urethra*, then they " thruſt a Pair of Forceps through the Neck into " the Cavity of the *Bladder*, with which they lay hold " of the *Stone*, and draw it through the Wound. But " the Diameter of the Paſſage being much leſs than the " Bigneſs of the Forceps and the *Stone* together, they " cannot be extracted, but by great Force and Violence; " by which the Neck of the *Bladder*, &c. are very much " contuſed and lacerated, whence ſometimes Death, a " Fiſtula, or an Incontinency of Urine, in thoſe that " eſcape.

IV. *De Franco's* Method.

What Authors call the high Operation, *i. e.* Cutting for the *Stone*, on the lower Part of the Belly, was firſt practiſed by *Peter de Franco*, of *Turriere* in *Provence*, of which he gives the following Account, in his Treatiſe of *Hernia's*, publiſhed at *Lyons*, 1581. *Je*

Je reciteray ce que une fois m' eſt advenu voulant tirer une pierre a un enfant de deux ans ou environ: auquel ayant trouve la pierre de la groſſeur d' un œuf de poulle, ou peu pres, Je fey tout ce que je peu pour la mener bas: & voyant que je ne pouuoye rien avancer par tous mes efforts, avec ce, que le patient eſtoit merueilleuſement tormentè, & auſſi les parens deſirans qu' il mouruſt pluſtoſt que de viure en tel travail: joint auſſi, que je ne vouloye pas quil me fut reprochè de ne l'avoir ſeu tirer, (qui eſtoit à moy grand folie) je deliberay avec l' importunitè du Pere, Mere & Amis, de Copper le dit enfant par deſſus l' Os Pubis, d' autant que la pierre ne volut deſcendre bas, & fut coppé ſur le Penil, un peu a Coſtè & ſur la pierre. Car je leuoys icelle avec mes doigts, qui eſtoyet au fondement, & d' autre Coſté en la tenant Sujette avec les mains d' un Serviteur qui comprimoit le petit ventre au deſſus de la pierre, Dont elle fut tiree hors par ce moyen, & puis apres le patient fut guary, (non obſtant qu' il en fut bien malade) & la playe conſolidèe: Combien que je ne conſeille a homme d' ainſi faire. Ains pluſtoſt uſer du moyen par nous inventé du quel nous venons de parler.

" He ſays, he had a Child about two Years old, who " had a *Stone* in the *Bladder* as big as a Hen's Egg, " brought to him to cut: He uſed all his Dexterity to " force the *Stone* down to the Neck of the *Bladder*, but " found it impoſſible to be done: The Child was in that " Torture and Miſery, that the Parents wiſhed him rather

 " dead,

" dead, than he ſhould live longer in ſo doleful a Condi-
" tion. *De Franco*, on the other Hand, thinking it
" would tend to his Diſhonour not to take away the
" *Stone*, at laſt reſolved to make Tryal, whether he could
" not bring it to the very Groin, which he did, by put-
" ting his Fingers into the Fundament, and raiſing up the
" *Stone*; he cauſed his Servant, on the other Side oppo-
" ſite to him, to preſs it down to the Place intended for
" Inciſion; which he made, took out the *Stone*, and, tho'
" the Child was very weak, recovered him, and healed
" the Wound: But he adviſes others not to follow his
" Example; and, inſtead of it, recommends the Opera-
" tion which he calls his own Invention, and has deſcrib-
" ed, in the foregoing Part of the ſame Chapter.

I am as much ſurpriſed at his Succeſs (conſidering his uncouth Way of operating, and the low Condition of his Patient) as I am, that he was not thereby encouraged to conſider farther on it, and improve it, inſtead of telling us, that though he ſucceeded, yet we ought never to attempt it. For which he is ſeverely reprehended by the moſt judicious *Roſſetus*, in theſe Words,

Per Abdomen Cyſtotomiam abſolvi fœliciter poſſe jamdudum augurabar; ſed operis Novitas, & Thraſonum quorundam Os infrene, mihi Silentium imperabant.

Interim incidi commodùm in quendam Petri Franconis *libellulum de Herniis gallice inſcriptum, ubi celeberrimus*

ille

ille iatrocelicus historiam memorabilem contexit cujusdam bimi infantuli, vesica per divisum a se juxta pubem hypogastrium aperta a calculo liberati, obsecrantibus ideo id parentibus, quòd aliter ei sectori nihil succesſerat, omnia prius frustra experto, ut ad perinæum calculum admoveret. Id vero unice miror, cur deinceps id tentari dehortetur. Invidetne hominum Societati bonus ille vir eam inventi (dicet fortuiti & coacti) fœlicitatem? aut sibi & collegis esuritionem præmetuit? aut notam ipsorum censoriam, & ab eorum Symphratria, & Collegio exilium formidat, tanquam cornicum oculos confixerit? Quidnam enim postea id jam usu cognitum profuisse, rursus profore vetabit, viribus ægri constantibus, quod attritis iisdem misere vexato jamque Semineci infantulo, profuisse constitit, aliis omnibus frustra tentatis? Dissuadet opinor, quod infantulus ab ea Sectione ægrotaverit: atqui nisi prius idem graviter ægrotavisset, eò ventum non fuisset. Interim cogitandum est quin male habuerit fieri non potuisse, sed mirandum etiam quod pejus ei non fuerit, cum bimulus tantum esset, cum diuturno dolore fractus, cum recenter antea fatigatus, intromissione præcedente digitorum Sectoris crassorum in ægrotantis tenellum podicem, & appressu pugni ejusdem in hypogastrium, ut solent in eo ipsorum veteri opere: quæ omnia illum potius, quam Sectio hypogastrica affligere, & mirum etiam cur non ad mortem cogere potuerunt.

" I have a great while imagined, that the *Stone* might " safely be extracted through the *Hypogastrium*, but the " Novelty of the Operation, and the unbridled Tongues

" of malicious People, deter'd me from it. In the mean
" Time I fortunately met with *Peter Franco*'s Treatiſe of
" *Hernia's*, written in *French*, in which that expert Rupture-
" Curer relates a remarkable Hiſtory of a Child of two
" Years of Age, which he cured of the *Stone*, by cutting
" into the *Bladder*, through the *Hypogaſtrium* near the
" *Os Pubis*, the Parents preſſing him to do it, which
" otherwiſe he had never undertaken, becauſe he had in
" vain endeavoured, by all Means poſſible, to bring the
" *Stone* down to the *Perinæum* as uſual. But I very
" much Wonder why, after his Succeſs, he ſhould adviſe
" us not to attempt this Method. Did that good Man
" envy Mankind the Happineſs of his Diſcovery, though
" accidental, and as it were forced upon him, or was he
" afraid that it would be detrimental to him and his Frater-
" nity, or did he fear being expelled their Society in an
" ignominious Manner? Of what Uſe would his Diſco-
" very have been to Poſterity, when he forbids us to prac-
" tice it, even on the moſt promiſing Subjects; though he
" himſelf ſucceeded on an Infant worn out and half dead
" with Pain, after all other Methods had been tryed in
" vain. He diſſuades us from it, I ſuppoſe, becauſe the
" Child was much diſordered by the Operation; but if he
" had not been very ill before, this Experiment had never
" been tryed.

" I am ſo far from being ſurpriſed that he was ſick after
" it, that I wonder he was not worſe, conſidering he was
" but two Years old, waſted with continual Pain, ſo lately

" fatigued

" fatigued by the Operator's thruſting his Fingers up the " *Anus* of ſo young and tender a Subject, and his preſs- " ing upon the Belly, as uſual in that ancient Method; " all which, rather than the *Hypogaſtrick* Section, muſt " very much diſorder him, and its a Wonder they were " not the Occaſion of his Death.

Hiſtory of Bonnet, *and* Groenvelt.

The late Monſieur *Tolet*, *Lithotomiſt* to the King of *France*, gives the following Account of one *Bonnet*.

Feu M. Jonnot *m'a dit autrefois que M.* Bonnet *Chirurgien, qui pratiquoit il y a tres long temps la Lithotomie dans l' Hôtel Dieu de* Paris, *l' avoit aſſuré d'en avoir taillé de cette façon. M.* Petit *Maitre Chirurgien de cet Hoſpital m'a dit l' avoir vû pratiquer ſur une petite fille par le même M.* Bonnet.

" Mr. *Tolet* ſays, that the late Mr. *Jonnot* (who was " alſo a famous *Lithotomiſt*) told him formerly, that " Mr. *Bonnet* a Surgeon, who practiſed *Lithotomy* a con- " ſiderable Time ago, in the *Hotel Dieu* at *Paris*, aſ- " ſured him (*viz.* Mr. *Jonnot*,) that he had cut after that " Manner. Mr. *Petit*, Maſter Surgeon of that Hoſpital, " alſo told our Author, that he had ſeen it practiſed by the " ſame Mr. *Bonnet* on a young Girl.

Monſieur *Dionis* alſo mentions the ſame Man.

On nous aſſure que Monſieur Bonnet *a pratiquè ſouvent cette Operation a l'* Hôtel Dieu *de* Paris *avec une heur eux ſucces, & que même Monſieur* Petit *luy a vû faire.*

" We are aſſured that Monſieur *Bonnet*, frequently, " and with good Succeſs, perform'd this Operation, at the " *Hotel Dieu* in *Paris*, and that Monſieur *Petit* has " ſeen him do it.

This is all the Account we have of this *Bonnet*, who they ſay perform'd it ſeveral Times publickly, and always with Succeſs, yet which is very ſtrange, they have given us no Account of his Method of Operating, or why he was not imitated by his Contemporaries.

" Dr. *Groenvelt* tells us, in the *Engliſh* Edition of his " Book on *Lithotomy*, publiſhed in 1710. that he once had " a Patient in *Long-lane Moorfields*, upon whom he was " obliged to perform this high Operation; and he very ſuc- " ceſsfully extracted the *Stone*, by making Inciſion near the " Groin, the Patient ſoon recovering; which ſhews that " Wounds in the *Bladder* are not always Mortal.

I cannot but Queſtion the Truth of both *Bonnet*'s, and *Groenvelt*'s Operations: *Firſt*, becauſe they are mention'd after ſo ſlight a Manner: *Secondly*, becauſe one of the oldeſt Surgeons in *Paris* (that was very intimate with the above mention'd *Petit*, many Years before his Death) aſſured a Friend of mine, that he never heard him mention theſe Operations of *Bonnet*: *Thirdly*, becauſe one of the oldeſt *Lithotomiſts* here, told me, that he never heard of *Groenvelt*'s Operation,

Operation, till he publiſhed the *Engliſh* Edition of his Book on *Lithotomy*; for which, and many other Reaſons, he did not believe it.

V. *Frere Jacques*'s Method,

Is very exactly deſcribed, and its Inconveniencies ſhewn by that excellent Surgeon, Monſieur *Mery*, as alſo by Monſieur *Dionis*, to whom I refer the inquiſitive Reader.

VI. Dr. *Rau*'s Method.

I am informed that Dr. *Rau* had very extraordinary Succeſs, and though he Cut upon a *Staffe*, he made the Wound very near the ſame Place, as in Cutting on the Gripe, and ſo went directly into the Cavity of the *Bladder*, without touching the *Urethra*, as in the common Way.

I do not hear that he has publiſhed any Account of it himſelf, and therefore refer the Curious to the learned Profeſſors at *Leyden*, who were Eye-Witneſſes of his Dexterity and Succeſs, for a more particular Deſcription of it.

Roſſetus's Scheme.

My Friend Doctor *Horſeman*, brought me from *Paris* in *November* laſt, the ſecond Edition of *Roſſetus de partu Cæſareo*, printed in 1590. In which I find the high

Operation propoſed and deſcribed with great Judgment, Sagacity, and Exactneſs.

This excellent Author has certainly been very little read, or very ill underſtood, elſe this Method had not been ſo long a Secret. Had I been ſo lucky as to have met with that invaluable Book, before I had Cut living Bodies, it would have ſaved me a vaſt deal of Thought, Labour, and Expence, in compoſing the Theory of my Operation, it is ſo clearly and evidently demonſtrated and accounted for, in that profound and venerable Author.

He propoſes three Ways, of making this Operation, in all which the *Bladder* muſt be diſtended with ſome Liquor.

I. *Way.*

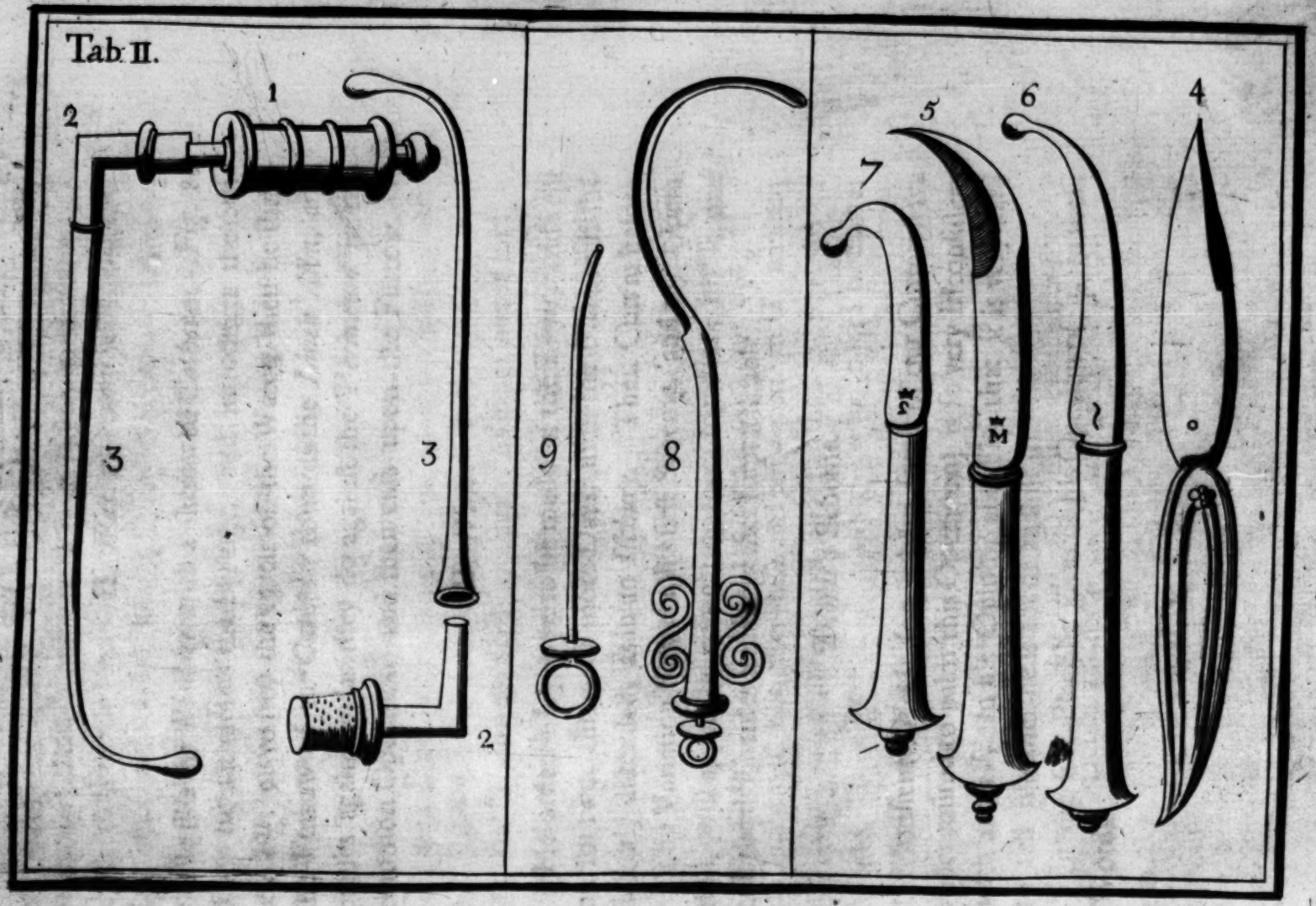
He fills the *Bladder* with Barley-Water, Milk, or a vulneraty Decoction with the *Catheter* and *Syringe*, *Tab.* 2. *Fig.* 1, 2, 3. and ſecures it from flying out again, by an Aſſiſtants Hand, or a Ligature.

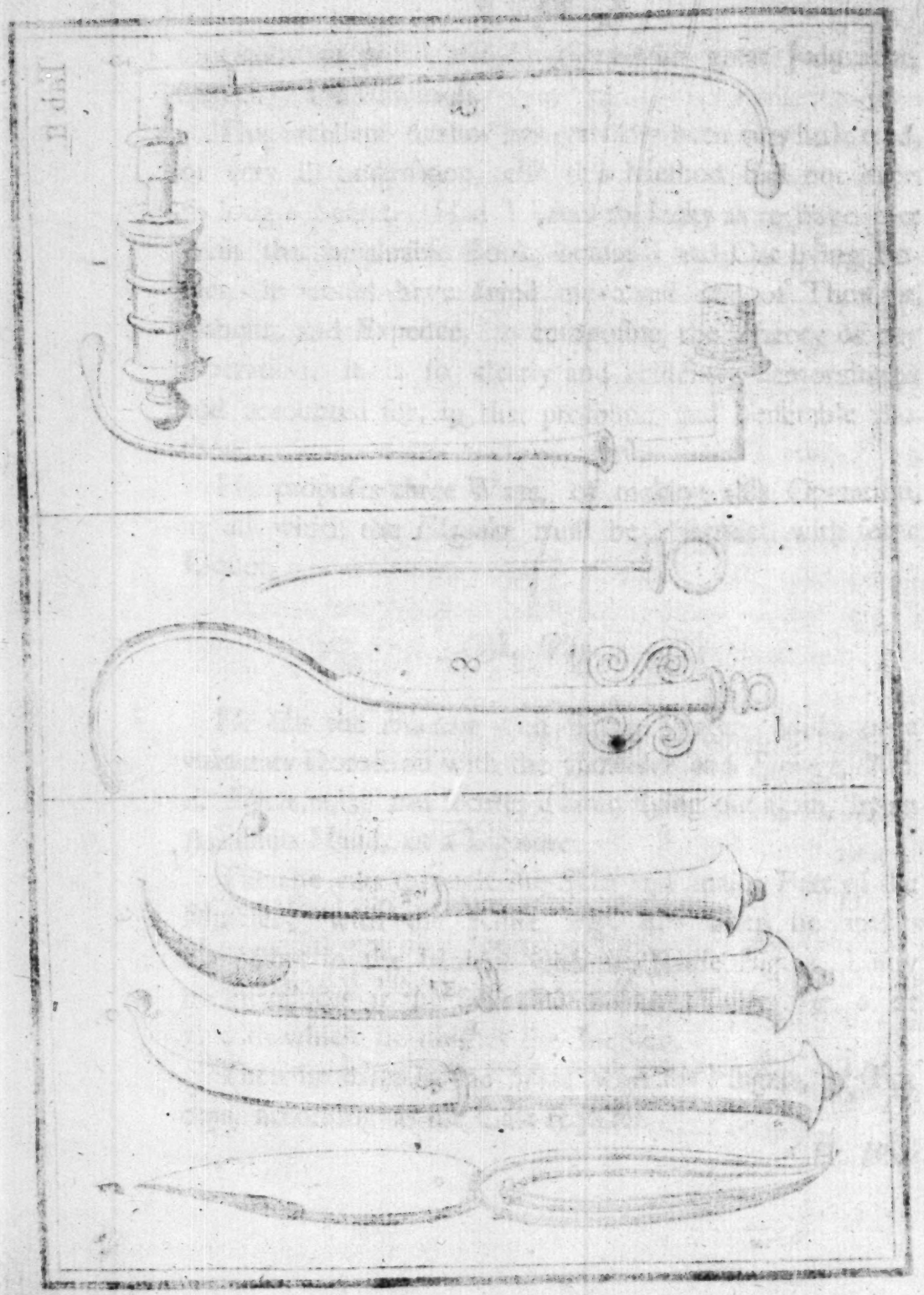
Then he cuts through the Skin and major Part of the Muſcles, with the Knife *Fig.* 4. Then he makes a puncture in the Bladder with the Knife *Fig.* 5. Laſtly he introduces at the ſame Wound the Knife *Fig.* 6. or 7. with which he finiſhes the Inciſion.

Then he extracts the *Stone* with his Fingers, or Forceps, according as the Caſe requires.

II. *Way*

Tab. II.





II. *Way.*

He fills the *Bladder* with a furrowed *Catheter*, *Fig.* 8. Then he withdraws the Syringe, and introduces the Stillet, *Fig.* 9. to ſtop the egreſs of the Water, then he turns the Furrow of the *Catheter* towards the *Linea Alba*, and preſſes againſt it (as they do againſt the *Perinæum* in the common Operation) and then cuts upon the Furrow.

III. *Way.*

He orders a Ligature to be made on the *Penis*, and kept on for two, three, or more Days, until the *Bladder* is ſufficiently diſtended, as in an *Iſchury*. Then Cuts as before.

The Variation between his firſt Scheme, and my Operation, will appear by comparing them together; his ſecond and third Schemes are altogether impracticable.

Dionis's Scheme.

Monſieur *Dionis* (on whom ſome of our Cutters have endeavoured to palm this Operation) is ſo very Inconſiſtent with himſelf, in his Opinion about it, that it is very hard to tell whether he is for or againſt it.

In the firſt Place he gives us his Opinion of it, in theſe Words.

Je ne trouve point cette Operation ſi perilleuſe qu' on pourroit S' imaginer, je la Crois au contraire moins Dangereuſe que la petit & que le grand Appariel.

" I do not think this Operation ſo hazardous as it " may be imagined, but believe it, on the contrary, leſs " dangerous than the leſſer, or great *Apparatus.*

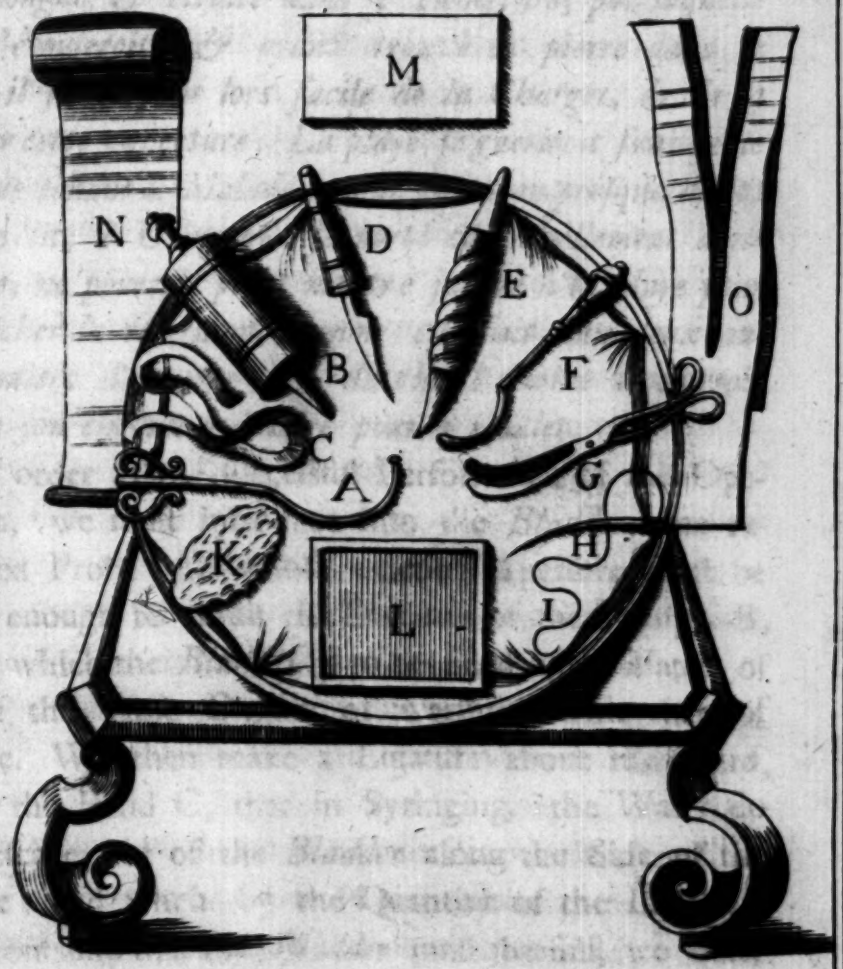
Secondly, He gives us a Plate of the Inſtruments he would have us Uſe.

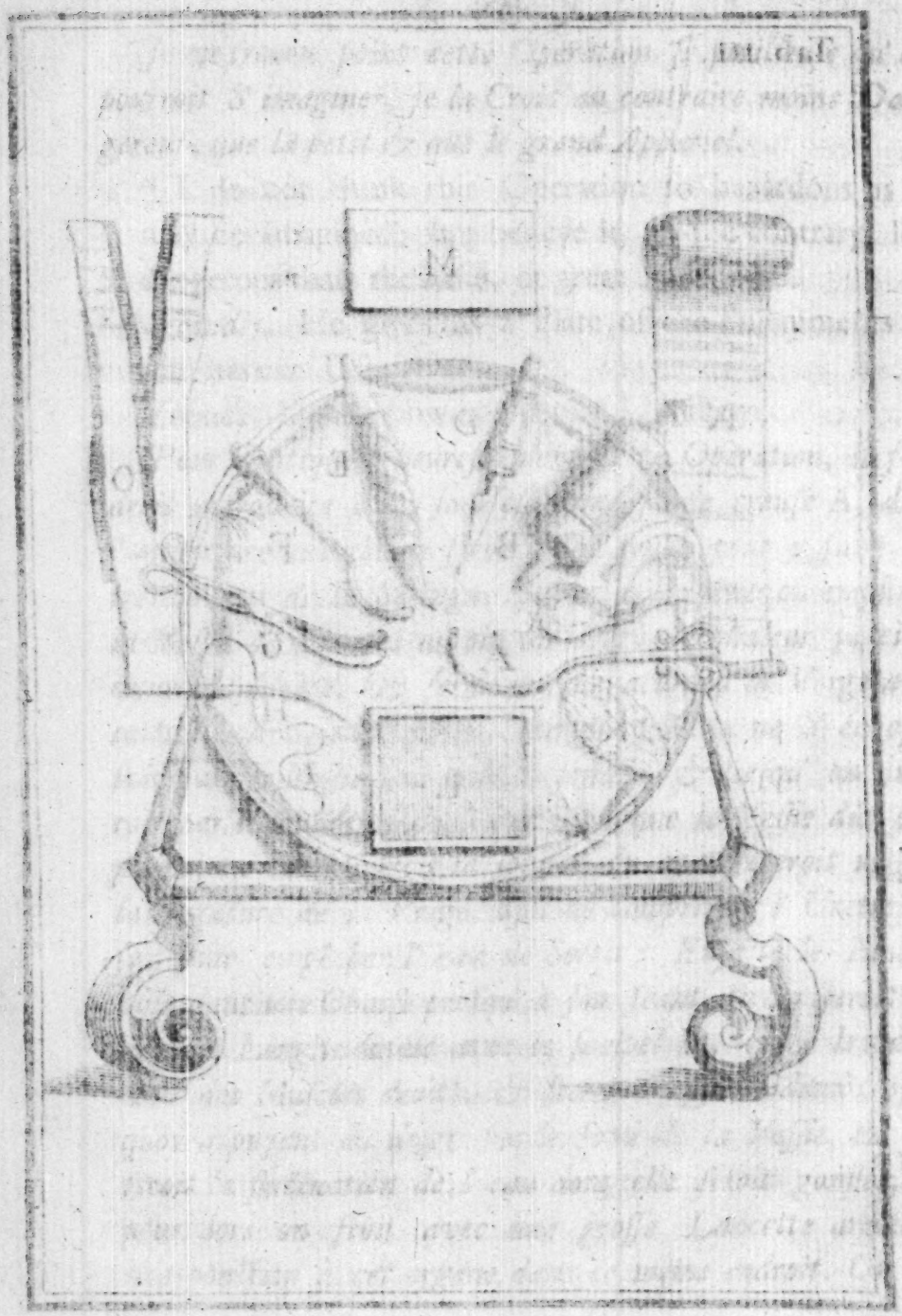
Thirdly, Directs how we ſhould Uſe them.

Pour pratiquer heureſuement cette Opèration, il faudroit introduire dans la Veſſie une ſonde creuſe A, *dont l' ouverture extérieure ſeroit aſſez ample pour y faire entrer le bout de la Seringue* B, *avec laquelle on empliroit la Veſſie d' eau qui auroit un dègré de chaleur pareil à celuy de l' Urine. On feroit une Ligature à la Verge avec cette Band* C, *afin qu' en Seringuant l' eau ne S' échapât point de la Veſſie à côtè de la ſonde ; & lorſqu' on jugeroit par la quantite de l' injection que la Veſſie dût être pleine, on en retireroit la ſonde ; & on reſſereroit un peu la Ligature de la Verge, afin de comprimer l' Uretre aſſez pour empêcher l' eau de Sortir : Enſuite le Malade aſſis dans une Chaiſe preſqu' à ſon ſéant, on luy feroit une inciſion Longitudinale avec le ſcalpel* D, *entre les deux têtes des Muſcles droits, & les deux pyramidaux ; apres quoy appuyant du doigt ſur le fond de la Veſſie, on ſentiroit la fluctuation de l' eau dont elle ſeroit gonflée, & pour lors on froit avec une groſſe Lancette armée* E, *une ponction à cet organe dans ce même endroit. On con-*

noîtroit

Tab. III.

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noltroit aiſement quand la Veſſie ſeroit ouverte, par l'eau qui en ſortiroit, & auſſitot avec le Crochet F, *on pouroit fair ſortir la pierre; ou bein on plongeroit une tenette* G, *longue & étroite dans l' ouverture, par laquelle l' eau s'écouleroit, & ayant trouvé la pierre dans la Veſſie, il ſeroit pour lors facile de la Charger, & de la tirer par cette ouverture: La playe ſe gueriroit ſans peine parce que tenant le Malade en une ſituation preſque droits dans ſon lit, l' Urine que ſe porte continuellement dans la Veſſie; ne pourroit point montre juſque à la playe pour en empêcher la ré Union, comme elle fait aux deux autres maniers d' operer; & de plus l' Urine trouveroit toûjours ſon chemin ordinaire pour s' écouler.*

" In order to the ſucceſsful Performance of this Ope-
" ration, we muſt introduce into the *Bladder*, the ex-
" cavated Probe A, whoſe exterior Aperture muſt be
" large enough to admit the Entrance of the Syringe, B,
" with which the *Bladder* is to be filled with Water, of
" about the ſame Degree of warmth, with that of
" Urine. We then make a Ligature about the Yard,
" with the Band C, that in Syringing, the Water do
" not eſcape out of the *Bladder* along the Side of the
" Probe; and when by the Quantity of the Injection,
" we conclude that the *Bladder* muſt be full, we draw
" out the Probe, and pull the Ligature of the Yard a
" little tighter, in order to preſs the *Urethra* ſufficiently,
" to hinder the eſcaping of the Water through that Paſ-
" ſage. The Patient being ſeated in a Chair, almoſt on his

" Buttocks, we make an Inciſion length ways with " the Penknife D, betwixt the two Heads of the ſtrait, and " the two pyramidal Muſcles; after which, reſting " a Finger on the Fund of the *Bladder*, we feel the " Fluctuation of the Water, with which it is tumified, " when with a large armed Lancet E, we muſt make a " Puncture in that Place of that Organ. We may eaſily diſ- " cover when the Aperture is made in the *Bladder* by the " Water which will run out, immediately after which, with " the Crotchet F, we may draw out the *Stone*, or elſe thruſt " a long and narrow pair of Forceps G, into the Aperture " through which the Water flows out, and having found " the *Stone* in the *Bladder* it will be eaſy to charge them " with it and draw it out at the Orifice. The Wound heals " without Pain, by Reaſon that keeping the Patient in an " almoſt erect Poſture in his Bed, the Urine which conti- " nually inclines to the *Bladder*, cannot reach the Wound " and hinder its cloſure, as in the two other Ways of Ope- " ration, but beſides always turns into its ordinary Paſſage " in order to run off.

The Subſtance of all this is taken from *Roſſetus* (tho' he has not mention'd his Name) and altered ſo much for the worſe that it is plain he did not underſtand him. *E. G.*

1. In the Poſition he would have the Patient put, no Man can make the Operation.

2. After

2. After the Punction he orders to be made in the *Bladder*, we would not have room to introduce the Forceps, much leſs extract a *Stone*, &c.

3. He ſays the Water will always come the ordinary Way, which looks as if he had never ſeen, read, or heard of either accidental or artificial Wounds in that Part of the *Bladder*, &c.

Notwithſtanding he expreſſly prefers this, to both the common Operations in the Beginning, yet before he ends he alters his Mind.

Cette maniere paroît la meilleure; mais avant que de luy donner la preference ſur les deux autres, il faut qu' elle ſoit confirmée par pluſieurs experiences, dont la primiere ſe pourroit tenter ſur une Criminelle condamné à la mort, & qui auroit la pierre.

" This Manner of operating ſeems the beſt, but before " we allow it the Preference before the two others, it " muſt be confirmed by ſeveral Experiments, the firſt of " which may be tryed on ſome Criminal condemned to " Death, and afflicted with the *Stone*.

For which Opportunity he ſpent his whole Life to no purpoſe, and tho' he had lived ſix times longer, he might have gone without it, and ſo the World would ſtill have wanted ſo uſeful a Diſcovery.

SECT. IX.

The New METHOD.

HAVING thus described and animadverted upon both the antient and modern Ways of performing this Operation; I shall next give a short Account of my *new Method*, the Principles of which were first laid down by the most sagacious of all Surgeons, the abovementioned *Rosſetus*: Yet he ingenuously owns, that he never practised it on living Bodies, in the following Words;

Sed an vita ob noſtram hanc Sectionem periclitetur, ex ſolo ſucceſſu Sectionis Vivorum apparere poteſt.

"Whether this is preferable to the common Methods, "can only be known by the Success in cutting living "Bodies.

And in another Place,

Verum ſitne ea etiam ipſa quam deſignamus pars interna & externa lethalis necne nondum ſatis teſtatum arbitror, ſed in vivis duntaxat experiri licet.

And lastly, bewails his Misfortune, in not having an Opportunity of making so probable, and so useful an Experiment.

Cæterum

Cæterum ea dentium quæ in Cadaveribus expertus ſum, & quæ potui ſedulitate in vivis tuto faciendæ Meditatus, bonâ fide Lectori proponere volui, Operationum talium in vivis obſervandarum exempla daturus, ſiquis Irus Calculoſus ſe hactenus obtuliſſet, aut niſi lamentabile Henrici *Regis fatum recens nobis eam anſam de manibus extorſiſſet qui quatuor aut ſi opus eſſet pluribus ſuſpendio adjudicatis reis vitam me impetrante indulſerat, ſi ab eo opere noſtro ſoſpites evaſiſſent.*

" What I have obſerved in my Experiments on dead " Bodies, I have faithfully communicated to the Reader, " and ſhould alſo have given Inſtances of theſe Operations " on living Bodies, had any poor Patient offered, or had " not the lamentable Fate of King *Henry* the Third, " (who had promiſed me four or more Perſons that were " condemned to Death, to make the Experiment upon, " and them, their Lives if they recovered) deprived me " of the Opportunity.

From what has been ſaid, I think it is very evident that *Roſſetus* wanted an Opportunity, *Dionis* both the Skill and the Courage to do it, and that none of our Cutters (notwithſtanding the inimitable Expreſſion, and Argument of *Roſſetus*) ever thought it feaſible, until I began it in 1719, upon the following Conſiderations, *viz.*

1. Becauſe of *De Franco*'s Succeſs, though on a very young and weak Patient, that had a very large *Stone*.

2. Becauſe I found innumerable Inſtances in our moſt authentick Authors, and Army Surgeons, of accidental Wounds of the *Bladder* being perfectly cured; of which I ſhall mention a few.

Roſſetus gives us the following Account of a Wound in the *Bladder*.

Paræus *nulli non cognitus & doctiſſimus ille Iatrochirurgus* Fr. Raſſius *hujus Hiſtoriæ teſtes mihi locupletiſſimi, utpote oculati fuerunt, quam ego tum ex aliis compluribus, tum ex ipſa Chirurgi ad medendam adhibiti tripode & verbis & ſcripto ex ejus diariis fideliter deſumpto didici, & hic tranſcripſi, jam olim quidem auditam ex ipſius vulnerati ore, ſed nondum ſat mihi* (ut ingenue fatear) *perſuaſum. Talibus enim in rebus mihi imponi non patior.*

A. T. *Confoſſus fuit infra Umbilicum venter Pugione ſatis lato. Ei* xix. *diebus ac noctibus totis vulnere ſolo, nec prorſus alio meatu emanans lotium Veſicam haud dubie læſam arguebat: quod tum merum exiret ab ejus parte magis exangui, & minus carnea jure optimo ſtillare conjiciebatur. Vulneris præterea accepti ſedes editior inſinuabat neceſſario id viſcus parte ſui ſumma* (qua minus verè carneum eſſe videtur) *fuiſſe ſanciatum.* Florentinus Philippus *Chirurgus ſolers, immiſſo facillime per Uretram Argenteo Siphunculo, Urinam deduxit, vulnuſque citiſſime percuravit.*

I had the following Story from the Patient's own Mouth a great while ago, yet (as I muſt ingenuouſly confeſs)

" confeſs,) I did not believe it: Being very loath to ſuf-
" fer my ſelf to be impoſed on, in Caſes of this Nature;
" but afterwards hearing it confirmed by *Parey*, and the
" learned *Raſſius*, who were Eye-Witneſſes of the Fact,
" as alſo by the Surgeon concerned in the Cure, I could
" no longer diſpute it.

" *A. B.* received a Wound with a broad Sword, on
" the lower Part of the Belly; all the Urine flowed thro'
" the Wound for nineteen Days afterward, which was a
" certain Sign that the *Bladder* was wounded. The Situ-
" ation of the Wound plainly ſhewed, that it was in the
" upper Part of the *Bladder*, which is the leaſt fleſhy:
" Notwithſtanding *Fl. Philippus* an eminent Surgeon,
" having introduced a *Catheter* through the *Urethra*,
" drew off the Urine, and ſoon afterwards cured the
" Wound.

Caſpar Bauhinus, relates the following Caſe;

Cum tauro fugienti Helvetius ſe opponeret, ab eo Cornibus petitus, altero in Pectine circa Regionem Veſicæ intruſo, penitus tranſverſim perfoderetur, atque Urina in lumborum Regione emanaret: qui tamen Chirurgi opera ſanatus, ſine omni incommodo diu poſtea ſupervixit.

" *A. B.* was gored by a Bull in the lower Part of the
" Belly, the Horn penetrated into the Cavity of the
" *Bladder*, which was evident by the flowing of the
" Urine through the Wound, which nevertheleſs was

 " cured

" cured by the Surgeon, and the Patient lived many " Years afterwards without any Inconvenience from it.

C. *Stalpart Vander Wiel,* has the following Caſe;

Eques quidam nimium lato enſe hic Hagæ ita fuit læſus paulo ſupra Os Pubis media in Abdominis parte non latus, ſed anteriora aperiente Vulnere, ut ſe in Veſicam penetraret gladius, cujus indicium erat per vulnus effluens Urina. Ille autem intra tres Hebdomadas (utut lethalia clamet hujuſmodi Vulnera Hippocrates) *percuratus eſt.*

" *T. D.* Was wounded at the *Hague* with a broad " Sword, a little above the *Os Pubis,* in the middle of " the *Abdomen,* which penetrated into the Cavity of the " *Bladder,* as was evident from the Urine flowing thro' " the Wound, yet he was afterwards cured in three " Weeks, notwithſtanding *Hippocrates* ſays, ſuch Wounds " are mortal.

Claudius Aymand Eſq; Serjeant Surgeon to his Majeſty, told me, that he once cured a Gentleman that was Shot through and through the *Bladder* with a Bullet, and that he has been perfectly well ever ſince, tho' it is ſeveral Years ago.

From which Inſtances, *&c.* I concluded that ſince random Wounds, made with ſuch uncouth and improper Inſtruments had been happily cured; artificial Wounds, made in the moſt proper Place, with proper Inſtruments,

and

and all neceſſary Preparations and Precautions, would ſucceed with much leſs Trouble, and with much more Certainty.

3. Becauſe I was perſuaded by the Structure of the Parts, and the beforementioned Inſtances, that there would be leſs Danger of Death after it, and alſo, that it could never occaſion Impotency, Incontinency of Urine, *&c.* which are frequent after the common Operations.

4. Becauſe upon weighing and conſidering all the Objections that have been made againſt it by the Dead, and living, I found them all to be very ill grounded, and moſt of them perfectly imaginary, as will appear by their Anſwers. *vid. Sect.* xiii.

5. Becauſe I was firmly perſuaded (by the Experiments I had made upon dead Bodies) that I had ſurmounted the main and only Difficulty, that ever appeared to me in it, *viz.* the Method of performing it, with certainty and Safety.

So by theſe Motives, I was encouraged to Attempt this Way, in order to relieve Mankind from the moſt terrible of all Chirurgical Operations, and (by divine Providence) ſucceeded according to Wiſh.

Parts concerned in this Operation.

The Neceſſity of being well acquainted with the Structure of the Parts in all Caſes, as well as the preſent, before

before we undertake an Operation, is very well expreſſed by *Hildanus*, in the following Words:

In omnibus artibus, etiam Mechanicis, commune Axioma traditur, quod quivis opifex, artem ſuam ad proprium honorem ſuum, proximique emolumentum dirigere cupiens, ante omnia ſubjecti ſui, h. e. Materiæ, circa quam occupatur, proprietates atque naturam agnoſcere debeat. Sic quando Aurifaber exactam auri & argenti puri, vel cum aliis Metallis permixti, cognitionem non habet, quomodo aliquid boni atque laudabilis in arte ſua præſtare poterit? Sic neque faber lignarius, Materiarius, Lapidicida, faber ferrarius, & alii ſimiles, naturam ac proprietates ligni, lapidum, ac ferri ignorabunt; alioquin nunquam verum Scopum perfectæ in arte ſua peritiæ attingere poterunt, ſed ſemper a peritis artificibus tyronum loco habebuntur.

Quandoquidem igitur homo, nobiliſſima Dei Creatura, imò ipſa Dei imago exiſtit, meritò illi, qui circa illius Corpus occupantur, non ſicut faber lignarius, & lapidicida ligno atque lapidibus, ferrum admovere, ſed ſubjecti ſui, h. e. corporis humani, præcipue vero ejus partis, cui manus admoturi ſunt, exactam cognitionem habere deberent; Si enim hic error aliquis committeretur, longè gravior eſſet quam ſi circa prædictas materias accideret. Aurifaber ſi in opere ſuo hallucineter, illudque ſiniſtrè tractet, argentum vel aurum denuò in Crucibulum projicit, nihilque præter tempus atque laborem perdit; faber lignarius, Cæmentariux, ac faber ferrarius, nihil aliud quod magni momenti

ſit

amittit. Chirurgi vero ſubjectum, circa quod verſatur, eſt corpus humanum. Quocirca ut ipſius Conſtitutionem & plane ſtupendam divinamque ſtructuram ſciat & intelligat, neceſſe eſt.

" It is delivered as a common Axiom in all Me-
" chanical Arts, that every Workman who is deſi-
" rous of gaining Honour, and doing his Neighbour
" Service by his Buſineſs, ought firſt of all to be well ac-
" quainted with the Quality, and Nature of the Subject;
" *i. e.* the Matter he is to work upon: ſo when the Gold-
" ſmith has not a perfect Underſtanding in Gold and Sil-
" ver, either pure, or mixt with other Metals, how can
" he produce any Thing valuable, and praiſe-worthy in
" his Art? ſo neither can the Carpenter, Stone-cutter,
" or Smith, and ſuch like, who are ignorant of the Na-
" ture and Quality of Timber, Stones, and Iron; other-
" wiſe they can never come to Perfection in their Trade,
" but by the skilful Artificers will be always eſteemed as
" Novices.

" In as much as Man, the moſt noble Part of the
" Creation, yea the very *Image of God*, is our Subject,
" certainly thoſe who are imployed upon his Body, ought
" not like a Carpenter, or Stone-cutter, immediately to
" apply their Tools, but ſhould be perfectly acquainted
" with their Subject, *i. e.* the Structure of the human
" Body, eſpecially ſuch Parts as they are to operate upon:
" For an Error here is of much worſe Conſequence than
" in the preceeding Subjects. The Goldſmith, if he

" miſtakes or ſpoils his Work, throws his Gold or Silver
" again into the Crucible, and loſes only his Time and Pains;
" the Carpenter, Maſon, and Smith, ſuffer not much
" greater loſs. But a Surgeon's Subject is the human Body;
" wherefore it is abſolutely neceſſary, that he ſhould
" know and be well acquainted with the Conſtitution and
" admirable Structure thereof.

The Situation of the *Bladder*, on which this Operation is founded, has neither been deſcribed, nor the Uſe of it in this Caſe underſtood, by any of our Anatomiſts (who have commonly ſpent moſt of their Time in deſcribing thoſe Parts which are of no Manner of Uſe, either in the Practice of Phyſick, or Surgery) except the inimitable *Roſſetus*, out of whom *Dionis* pick'd it.

He expreſſeth himſelf thus:

Veſica ſita eſt extra Peritonæum & conſtituit quartum quendam exiguum ventrem.

Nothing can be more natural and true than this Deſcription. *Dionis* tranſlates it thus;

La Veſſie eſt placée hors du Peritoine.

So that the *Peritoneum* to which the ſuperior and back-part of the *Bladder* is attach'd, divides it from the Guts, much after the ſame Manner as the *Diaphragma* does the *Thorax* and *Abdomen*, and the fore-Part of it which is only concerned in this Operation, is attach'd (by Membranes much like thoſe that join the *Muſcles* together) to the *abdominal Muſcles* and *Os Pubis*.

This

This Situation is as certain and conſtant, as that of the Brain, Stomach, or Heart it ſelf, notwithſtanding ſome of our *Curioſi*, have dream'd the contrary, on purpoſe to puzzle the Cauſe.

The *muſcular* Coat of the *Bladder*, called *Detruſor Urinæ*, is a thick fleſhy *Muſcle*, from its Neck to the *Urachus*, as is expreſt by the beſt of Anatomiſts, Mr. *Cowper* in his Figure of it; notwithſtanding which, Authors are full of the Danger of the Wounds of the *Membranous* Part of the *Bladder*, though there's no ſuch Part in Nature. *Non ex libris, ſed ex diſſectionibus, non ex placitis Philoſophorum, ſed fabricâ Naturæ diſcere & docere Anatomen profiteor.*

The Parts cut, are the external *Teguments*, *Muſcles* of the *Abdomen*, and Body of the *Bladder*.

N. B. I ſhould have been more particular in the Deſcription of theſe Parts, did not my Brother Dr. *Douglaſs* deſign ſpeedily to oblige the World with a full and correct Deſcription, not only of the Parts concerned in this, but alſo of thoſe in all the other Ways of Cutting.

Inſtruments

Inſtruments to be prepared before the Operation.

1. THE Table which muſt be three or four Inches lower at one End, than the other.

2. The Straps, which ought to be very ſoft.

3. A Cup with Oil.

4. The Catheter and Stillet, *Tab.* 4. *Fig.* 1, 2.

5. The flexible Tube with its Heads, *Fig.* 4, 5. 6. one of which is ſcrewed into the Head of the Catheter, and the other is ſlip'd upon the Noſe of the Syringe □.

N. B. The Tube is made of an *Ox's Ureter*, and was firſt contrived by Mr. *Cheſelden.*

6. The Syringe, *Fig.* 7. which ought to hold Water enough to fill the *Bladder* at once, or twice at moſt?

7. The Catheter Key, *Fig.* 8.

8. The firſt Inciſion Knife, *Fig.* 9.

9. A Spunge.

10. The ſecond Inciſion Knife, *Fig.* 10.

11. The new Inſtrument, *Fig.* 11.

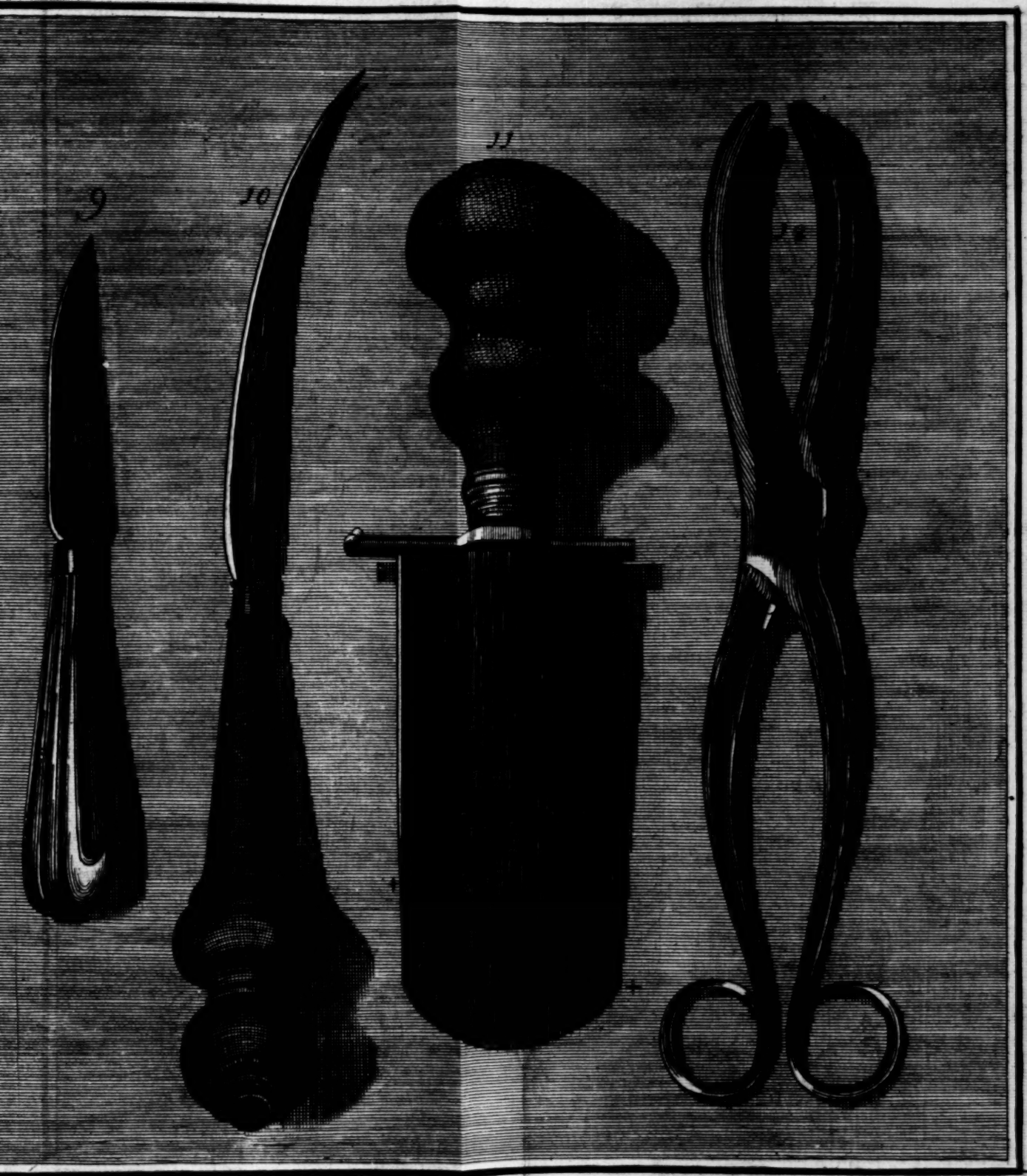
It is about the thickneſs of a common Caſe Knife, has no Edge but from x to x, which is as ſharp as a Razor.

Its other Dimenſions are as in the *Figure*, and are to be alter'd as the Caſe requires.

12. The Forceps, *Fig.* 12.

Number

Tab. IV.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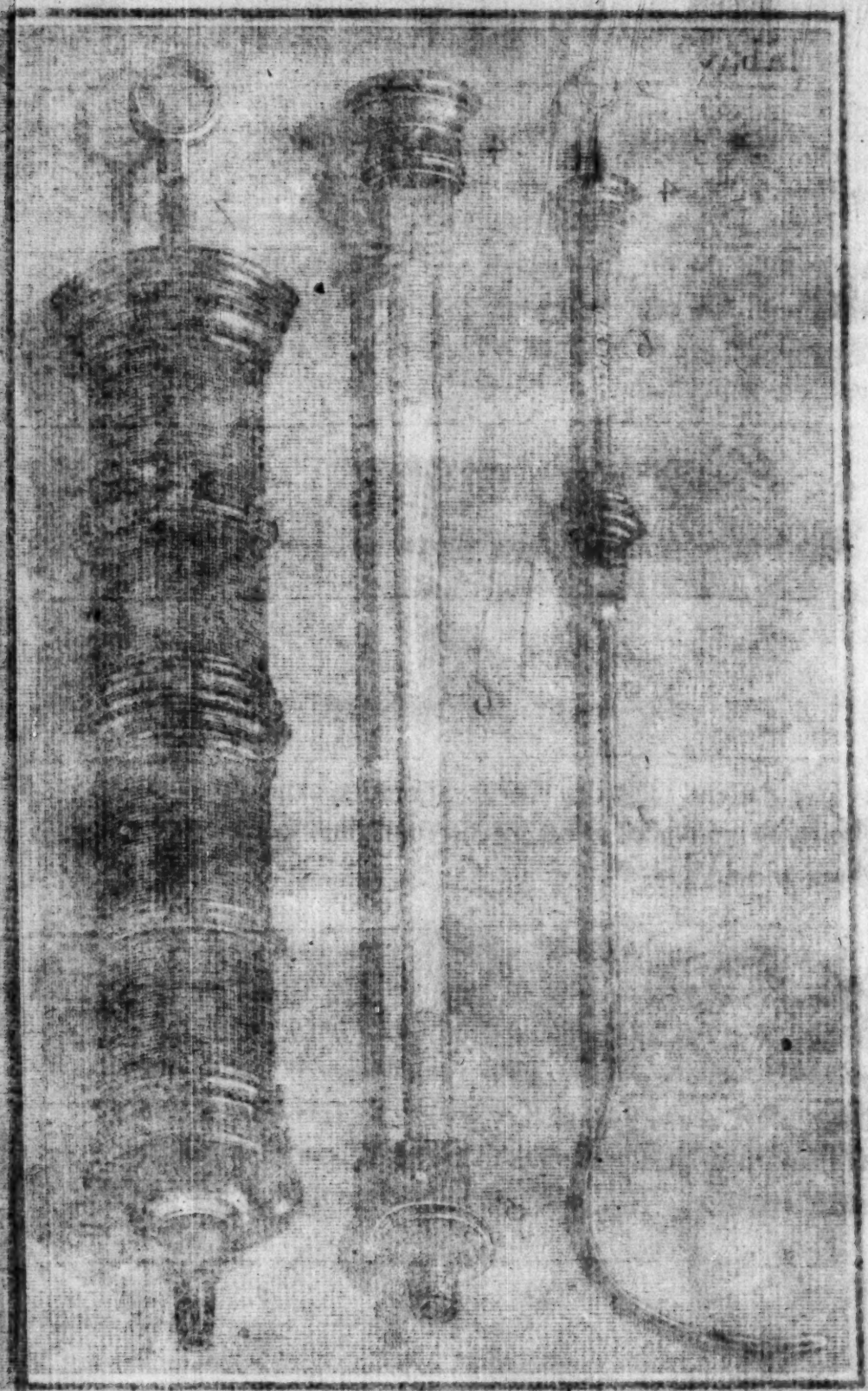


Number and Office of Assistants.

There must be seven intelligent Assistants, of which two are to hold the *Os Ilia* and Knees firm, two others the Shoulders, and one the Head, the sixth is to gripe the *Penis*, and the last to hold the Water Pot, and give and receive the Instruments.

Situation of the Patient.

The Patient is to be placed flat on his Back on the Table, with a thick Pillow under his Head, then his Wrists and Ancles are to be fastned together with Straps.

How to make the Operation.

The Patient, and the Knee, Shoulder, and Head Assistants, being placed as before directed, the Operation consists of three Parts.

I. In filling the *Bladder*, which is done thus;

Pass the *Catheter*, *Tab.* 4. *Fig.* 1. then draw out the *Stiller*, *Fig.* 2. then fill the Syring, *Fig.* 7. with luke-warm Water, then fix it to the brass Head of the flexible Tube, *Fig.* 4. with the Key, *Fig.* 8. then order your Assistant to gripe the *Penis*, so as the Water may not regurgitate, then press the Water leisurely into the *Bladder*,

until you perceive it is raiſed ſo far above the *Os Pubis*, that there is room enough to make a ſufficient Inciſion into it, then withdraw the Syring, and get the *Penis* Aſſiſtant to extract the *Catheter* very gently, taking particular Care to ſtraiten his Gripe, ſo as none of the Water follows it, then let him turn the *Penis* down towards the *Anus*, which will hinder the Water from ſpurting out, and alſo keep his Hand out of the Way.

N. B. If the *Bladder* is filled too full it gives great Pain, relaxes its *Fibres* ſo much, that they will with great Difficulty, if ever, recover their natural Tone, and forcibly ſeparates the *Peritoneum* from the *Muſcles* of the *Abdomen*, which may occaſion Inflammations, Impoſthumations, *&c.*

If it is not filled enough, it will be impoſſible to make a ſufficient Inciſion into it, and conſequently to extract the *Stone*, without contuſing and lacerating the Parts, as in the common Operations.

The Medium between theſe two Extreams muſt be found out by the Sagacity of the Operator.

II. In making the Wound, which is done thus:

Take the firſt Knife, *Fig.* 9. and cut at leiſure, and with a ſteady Hand exactly in the middle, from near the upper Part of the Tumor of the *Bladder*, or lower according to the computed Bigneſs of the *Stone*, down to the *Os Pubis*, continue the Inciſion till you have got ſo low, that you can diſtinctly feel the Fluctuation of the Liquor in the

 Bladder

Bladder with your Fingers (which will happen before you are quite through the *Muſcles*) then wipe off the Blood with the Spunge wrung out of warm Water, then take the ſecond Knife, *Fig.* 10. and place its back in the middle of the *Os Pubis*, then run its Point down towards the *Collum Veſicæ*, until you get into the Cavity of the *Bladder* (which is diſcovered by the iſſuing out of the Water) then holding your Knife in a perpendicular Line, run it along very quickly towards the Fund of the *Bladder*, as far as neceſſary.

N. B. If the Wound in the *Bladder* is made too large, then you are in Danger of penetrating into the Cavity of the *Abdomen*.

If it is made too ſmall, then you cannot extract the *Stone*, but with great Difficulty, it being hardly poſſible to enlarge the Wound afterwards with Safety.

Theſe Extreams are to be avoided as above; but for the more Security, I have lately contrived an Inſtrument, which in judicious Hands, I believe will prevent both theſe Accidents: It is uſed thus.

The Inciſion being made with the firſt Knife as above directed, take the new Inſtrument, *Fig.* 11. and turn the blunt Side towards the Navel, and the cutting Side upon the *Os Pubis*, then holding it in a perpendicular Line, plunge it into the *Bladder* (which will require very little Force, conſidering its Edge is as ſharp as a Razor) then in drawing it out, turn the cutting Part of its lower Side under

der the *Os Pubis*, which will farther enlarge the Wound.

I have never uſed this Inſtrument on living Bodies, but I am very well ſatisfied by the Expetiments I have made on dead Ones, that it will anſwer much better than any yet propoſed.

It is to be made broader or narrower, according to the Bigneſs of the Patient, or ſuppoſed Bigneſs of the *Stone*, which muſt be determined by the Judgment of the Operator.

The Incision of the Skin, and major Part of the *Muſcles*, ought always to be larger than that of the *Bladder*, which will very much facilitate the Extraction of the *Stone*.

III. In extracting the *Stone*, which is done thus:

The Wound being made, paſs the fore and middle Fingers of your left Hand into the *Bladder*, to examine the Figure and Bigneſs of the *Stone*, then if ſmall, paſs the fore and middle Fingers of the Right, into the *Anus*, and raiſe it up towards the Wound, then you can eaſily catch hold of it with your Fingers that are in the Wound, and draw it out: But if it is large after having diſcovered its Figure by your Fingers, introduce the Forceps, *Fig.* 12. between them, into the *Bladder*, then turn the *Stone* into the Forceps with the ſmall End foremoſt, and take faſt hold of it, then draw out your Fingers, and afterwards the

Stone,

Stone, with Leasure and Caution, if it breaks, or there is more than one, take them out with your Fingers as before.

" *Omnes enim ibi convulneratæ partes dilatari quam* " *maximè possunt, certè vero multo facilius, & amplius,* " *quam Perinæi Regio ab aliis secari solita; sic ut ab ea-* " *rum diffractione in eruendo Calculo timendum non sit,* " *ad quod opus habent Dilatatorio illo suo mirum in* " *modum exhorrendo.* Rosset.

The *Stone* being extracted, lay two or three Pledgets of Lint armed with some good Digestive over the Wound, and a Bolster of Tow over them; then undo the Straps, and carry the Patient to Bed: Then embrocate all the *Abdomen*, *Scrotum*, and *Penis*, with warm *Ol. Chamomil.* then turn a Swath a little broader than the Patient's Hand once round him, and pin it on the Dressings just tight enough to keep them on, then order warm Stupes to be laid very frequently on his Belly, wrung out of a strong Decoction of Wormwood, Chamomile, *&c.* or out of equal Parts of fresh Urine and Lime-Water.

If they are not inclinable to Sleep, soon after the Operation, they must take a gentle *Opiate*, because nothing is so proper as rest.

The same Evening dress the Wound and embrocate the *Abdomen* as before, then anoint the *Groins*, *Scrotum*, and *Penis*, with *Unguent Alb.* or *Desicativum rubr.* to prevent their being scalded by the Urine, then apply the Stupes as above.

The Imbrocation and Stupes are to be continued till the Wound is well digeſted, and the Ointment, till the Water comes all the right Way.

The Wound is to be dreſt three or four times a Day; when it's well digeſted, they ought always to lye on one Side or the other, which will very much haſten the Cure.

All the Urine flows through the Wound until the Wound of the *Bladder* is cured, which is ſooner or later acccording to the Conſtitution of the Patient.

They ought not to be forced to go to Stool, under ſix or ſeven Days, unleſs ſome particular Reaſon requires it, becauſe ſtraining to Stool injures the Wound.

They ought never to be taken up, except to get their Beds made, until the Urine comes all the right Way, becauſe it makes them ſick, and hinders the Cure of the Wound.

When the Urine begins to come the right Way, it pains and ſcalds them almoſt, after the ſame Manner, and to as great a Degree, as when they had the *Stone* (which is cauſed by the Contraction of the *Urethra*, that has been ſo long uſeleſs) but it never laſts above a Day or two, and then they make Water with the ſame Eaſe and Freedom, as any other Perſon.

When Children feel this Pain, they catch hold of their *Penis*, and ſtop its Paſſage, by which it's forced again out at the Wound, which prolongs the Cure.

Cold

Cold is to be avoided by all Means, because it puts them to a great deal of Pain, either to ſtifle it, or cough out.

They drink Sack, or Sage-Poſſet, Sage-Tea, thin Mutton or Chicken-Broth, Water-Gruel, Ponada, *&c.*

N. B. That if a flexible *Catheter* could be paſſed, and kept in the Paſſage without Pain, it would very much haſten the Cure of the Wound.

SECT. X.

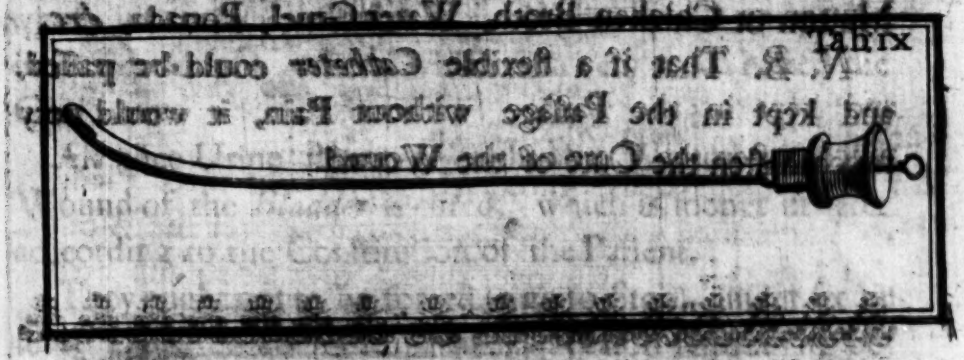
Method of cutting Females.

WHEN the *Stone* is ſmall, the common Method of extracting it is beſt; but when they are large, they cannot be extracted the common Way, without running the Riſque of having an Incontinency of Urine afterwards, and therefore in ſuch Caſes, they ought to be Cut thus:

Introduce the *Catheter, Tab.* 9. with the Tube fix'd to it, as before, then get an Aſſiſtant to thruſt the fore, and middle, Fingers of his left Hand into the *Vagina*, and compreſs the *Urethra* againſt the *Os Pubis*, then fill

fill the *Bladder*, extract the *Catheter*, and make the Operation as in Males.

The Operation is a great deal easier made, and the Cure much sooner performed, than in Males.



SECT. XI.

History of the Success of this Method.

HAVING thus described the Method of making this new Operation, and also what is remarkable in the Cure; I shall next (to confirm it) give a short History of its Success; which without ever entring into the Merits of the Cause, will be sufficient to persuade every reasonable and honest Man, that it is the most speedy, safe, and easy Method of extracting the *Stone*, as yet proposed.

History

History of my first Operation.

On the 23d of *December*, 1719. I made this Operation, the first Time, upon a Boy between sixteen and seventeen Years of Age, and in five Weeks Time he was perfectly cured.

P. 57.
The natural Figure and Bigness of the Stone.

History of my second Operation.

I made the second Operation *May* the 12th 1720. on a Boy of eight Years of Age, and in six Weeks Time, he was perfectly cured.

p. 38.

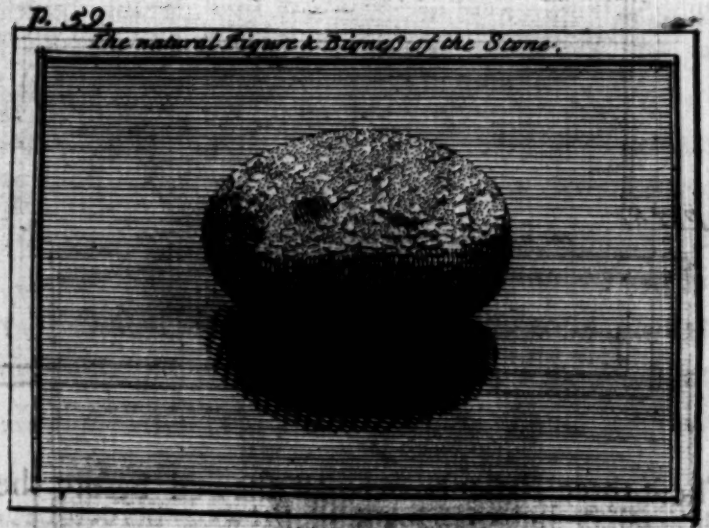
The natural Figure & Bigness of a Stone.

History of my third Operation.

My third Patient was but three Years old, and was cut in *August* 1720. but died of Convulsions about fifteen Hours after the Operation.

History

P. 59.

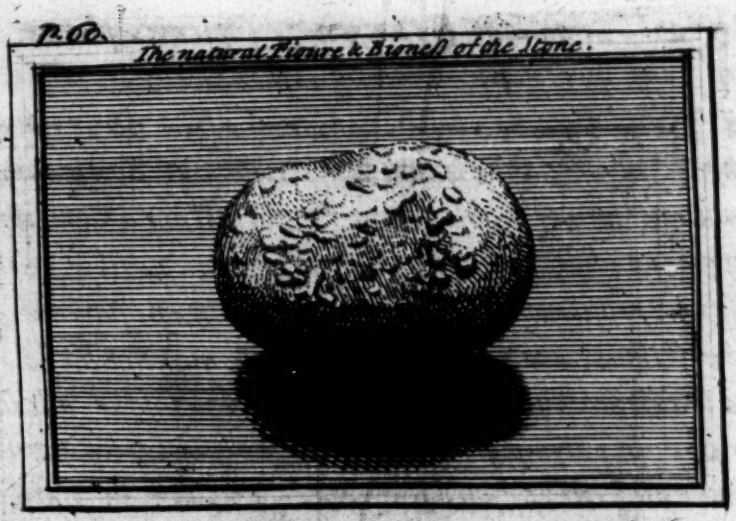


The natural Figure & Bigneſs of the Stone.

Hiſtory of my fourth Operation.

The fourth Operation was made the 23d of *March* 172½. upon a Boy between fourteen and fifteen Years of Age, and in four Weeks Time, he was perfectly cured.

In this Patient I made a ſmall Wound in the *Peritonæum*, through which I ſaw the Inteſtines preſent themſelves, but I puſhed them back with my Fingers, and ſtitched the Skin, and we had no farther Inconveniency from it; the Boy at this very Time ſerves Dr. *Stewart* in *Pall Mall*.



Theſe three Patients were all ſhewed before the *Royal Society*, ſoon after their Recovery.

Having thus ſucceeded three Times in the firſt four Operations, I was firmly perſuaded, that it would prove much more ſucceſsful, than the common Method; therefore I thought I could not oblige the Publick more, than by communicating it to the Surgeons of the Hoſpitals, where they have ſuch frequent Opportunities of practiſing it; accordingly I acquainted them, that I would come and Cut publickly, in either, or both Hoſpitals, whenever they pleaſed to give me an Opportunity; but inſtead of accepting of it, as I expected, they all rejected it with Scorn, as derogatory to the Characters of the *Cutters*, except Mr. *Cheſelden*, Surgeon to St. *Thomas*'s Hoſpital, who has always the Good of Mankind more at Heart, than any little private View of his own

"Philosophi enim veri, qui Amore veritatis & Sapientiæ
"flagrant, nunquam se tam copiæ sapientia plenos, reperi-
"unt, aut suo sensu abundant, quin veritati, a quocunque
"& quandocunque venerit, locum dent, nec tam angusti
"animi, ut credant, quamvis Artem aut Scientiam, adeo
"omnibus numeris absolutam & perfectam a majoribus tra-
"ditam, ut aliorum industriæ & diligentiæ nihil sit relictum:
"Quum profiteantur plurimi, maximam partem eorum
"quæ scimus, eorum, quæ ignoramus, minimam esse. Nec
"ita traditionibus & præceptis quorumcunque addicti in-
"servire se patiuntur Philosophi, ut libertatem perdant ut
"oculis propriis fidem adhibeant. Nec ita in Verbum ju-
"rant Antiquitatis Magistræ, ut Veritatem amicam in
"apertis relinquant & in conspectu omnium deserant; sed
"sicut credulos & vanos omnia primâ facie admittere &
"credere, ita manifesta sensui non videre, & luce Meridi-
"ana diem non agnoscere, stupidos & insensatos, pariter ex-
"istimant; & non minus Poetarum fabulas, & vulgi deli-
"ramenta quam scepticorum epochen, in via Philosophica
"declinare docent; omnes item studiosi, boni, honestique,
"nunquam ita passionibus indignationis, invidiæ, obrui
"mentem sinunt, quo minus audiant æquo animo, quæ pro
"veritate proferantur, aut rem vere demonstratam intelli-
"gunt: nec turpe putant mutare Sententiam, si veritas
"suadet & aperta demonstratio; nec Errores licet antiquis-
"simos, deserere arbitrantur inhonestum: quum optimè no-
"rint, quod humanum sit errare, decipi, & quod casu
"multa reperta esse contingat, quæ discere quivis a quovis

" *poſſit, a Juvene Senex, a ſtulto intelligens. Nihil cer-*
" *te infelicius iis ingeniis, quæ mordicùs ſentiunt, majores*
" *noſtros nihil ignoraſſe. Fallax quippe illud enunciatum,*
" Famoſum impoſſibile eſt eſſe falſum. *Profecto ætas*
" *multa docet etiam Hebetiores, quæ ſapientioribus anti-*
" *quis incognita fuere: nec natura rerum ſacra ſua ſimul*
" *edocet.* Veniet tempus, ait Seneca, quo iſta quæ nunc
" latent, in lucem dies extrahat, & longioris ævi diligentia:
" Poſterique noſtri tam aperta nos neſciiſſe mirentur. Mul-
" ta egerunt qui ante nos fuerunt, ſed non peregerunt.
" *Peregerunt? quam abeſt? multum adhuc reſtat operis,*
" *multumque reſtabit: nec ulli nato poſt mille ſecula pre-*
" *cludetur occaſio aliquid adjiciendi.*

About a Year ago Mr. *Paul* Cut two in St. *Thomas*'s Hoſpital, who both recover'd perfectly, though one of them was taken with the Small-Pox, eight Days after the Operation.

Upon the third of *May* 1722. Mr. *Cheſelden* Cut two Patients after this Manner, and before the Beginning of *Auguſt* following, he Cut ſix more; all which Operations ſucceeded to the entire Satisfaction of ſeveral of the moſt eminent Phyſicians and Surgeons in Town, and every one of them recovered. I ſhould have been more particular in the Hiſtory of theſe Caſes, did not Mr. *Cheſelden* deſign ſoon to publiſh an Account of them, to which I refer the inquiſitive Reader.

Thus out of the first fourteen, only one died; yet for all this Succeſs, there are ſome of our *Cutters*, ſo bigotted to Antiquity, that they cannot be perſuaded to lay aſide the old eſtabliſh'd Method.

From all which, I think, I may ſafely conclude, in the Words of my favourite Author *Roſſetus*.

Poſthac nemini dubium eſſe debet novam hanc noſtram Cyſtotomiam vetere illa tot Doctiſſimorum Chyrurgorum Cyſtotomia (tam periculoſa ut eam aggredi vel ipſe Hippocrates Chirurgôn Chirurgotatos metuerit) & leniorem & tutiorem haberi.

SECT. XII.

Advantages of this Operation.

IT'S Advantages are firſt, that there's leſs Danger of Death after it, as is evident from the Succeſs of the beforementioned accidental, as well as artificial, Operations.

2. That they can never be made Impotent by it, becauſe none of the genital Parts can be injured.

3. That

3. That an Incontinency of Urine can never be caused by it, becauſe the *Collum Veſicæ* cannot be touched in making it.

4. That there is no Danger of having a *Fiſtula* after it, if proper Care be taken of the Wound, becauſe it is made in a very fleſhy Part, and above the common Paſſage of the Urine.

5. That there can be no ſuch Force required to extract the *Stone*, as will contuſe and lacerate the Parts, becauſe the Paſſage for the *Stone* may be ſafely made above five Times larger than it is in the common Operation of cutting on the Staff.

6. That there can be no conſiderable *Hemorrhage* for the Reaſons aftermentioned.

7. That it is ſo quickly and eaſily performed.

8. That thoſe who have been Cut this Way, are as perfectly well, as if they had never been Cut; which happens very rarely, if ever, after the common Operation.

9. That there is little Danger of breaking the *Stone* in the Extraction, becauſe of the Largeneſs of the Wound.

10. That there is no Occaſion to introduce, and extract ſuch a Load of Iron Ware, *viz. Gorgerets, Conductors, Forceps, Dilators, Scoops, Crotchets*, &c. *Tab.* i. as in the common Method, which occaſions many grievous Accidents, as beforementioned.

11. That you can find the *Stone* immediately, though ever ſo ſmall, which often requires a great deal of grubling in the common Way.

12. That

12. That (ſuppoſing the *Stone* ſhould be attach'd to the *Bladder*, and not diſcovered before the Operation) you may eaſily diſcover with your Fingers, before you attempt to extract it, if it's a ſmall or large attachment; if ſmall, you may ſeparate it with your Fingers, and then extract the *Stone*; if large, you may leave it there, and heal up your Wound, whereby the ſpeedy, nay, immediate Death of the Patient would be prevented, which cannot be done in the common Operation, becauſe their Forceps has no feeling, *&c.*

13. That we are in no Danger of pinching the *Bladder* with the Forceps, in ſearching for the *Stone*, or of taking hold of the *Bladder* along with the *Stone*, and tearing them out together, whence certain Death, as has often happened in the common Operation.

14. That the Cure is ſooner completed, *&c.*

SECT. XIII.

Objections against this Method, formally answered.

CANERE meditabar receptui, ſed rebellant Quidam procaciter irridentes noſtram hanc Operationem; ſic ut in eos nova arma parantes novis Armis mihi pugnandum eſſe videam, ne triumphum ante Victoriam cecinisſe accuſer. Roſſet.

Notwithſtanding all the forementioned Succeſs, yet there are ſome who ſtill make the following Objections.

Obj. 1. That the Guts will burſt out at the Wound.

Anſ. The Inteſtins are kept from burſting out at the Wound by the *Peritonæum*, which is ſituated between the *Bladder* and the Bowels as before deſcribed.

Obj. 2. That the Urine from the *Bladder*, and the diſcharge from the Wound, will flow into the Cavity of the *Abdomen*, where corrupting, will occaſion ſeveral grievous and incurable Symptoms.

Anſ. This is alſo prevented by the forementioned Situation of the *Peritonæum*.

Obj. 3. That the Urine from the *Bladder*, and diſcharge

charge from the Wound will fall into the Cavity of the *Pelvis*, and by corrupting occaſion Death.

Anſ. If the Body of the *Bladder*, which is always attached to the neighbouring Parts, as before deſcribed, is not ſeparated from them in the Operation (which cannot be done, but by the Fault of the Operator) this Accident can never happen.

Obj. 4. That Wounds in the membranous Part of the *Bladder*, are mortal.

Anſ. The Body of the *Bladder* (which Authors erroneously call it's membranous Part) is covered with a thick and ſtrong *Muſcle* called *Detruſor Urinæ* (before deſcribed) without which it would be impoſſible to make Water with that Force we do, or to heal it's Wounds with ſo much eaſe and firmneſs, as daily Experience ſhews.

Obj. 5. That there will happen a conſiderable *Hæmorrhage*.

Anſ. The Inciſion being made exactly in the middle as above directed, there can be no Veſſels Cut but the moſt minute *Capillaries*, which I never obſerved to yield, but a very ſmall Quantity of Blood.

Obj. 6. That though the Wound is cured, yet the Patient would never be able afterwards to contain one tenth Part of the Urine he did before, which may occaſion ſeveral other Diſtempers.

Anſ.

Anſ. This was firſt dreamed by Mr. *B——t*, and as a Dream I leave it, having never heard of ſuch an Accident happening to any of thoſe that have undergone this Operation, except to the Bitch on which he made his Experiment.

Obj. 7. That being contrary to the Opinion and Practice of all the *Lithotomiſts* in *Europe*, it cannot be good, elſe it would have been practiſed before.

Anſ. The received Opinion is never the more true, merely for being eſtabliſhed. *E. G.*

Before Dr. *Harvey*, we were all ignorant of the Circulation of the Blood.

Before *Ambroſe Parey*, of the Uſe of the Ligature after Amputations.

Before Dr. *Highmore*, of the large Cavity in the upper Jaw.

Before Mr. *Cowper*, of the Operation that may be made upon the aforeſaid Cavity.

Before Monſieur *Petit*, of the Uſe of the *Muſcles* in reducing *Luxations*.

All theſe and many others that might be mentioned, were all thought very ſtrange, and out of the way Things, at firſt, but a little Conſideration, Examination, and Experience, forced People to believe them, tho' ever ſo contrary to the received Notions.

Obj. 8. That this is not a new Way (as is pretended) but an old Operation revived, which was long ago practiſed in *France*, and left off, becauſe of it's bad Succeſs.

Anſ.

Anſ. The Safety of this Operation depends entirely on filling the *Bladder* with ſome Liquor, which was never performed on a living Body before I did it, and therefore I inſiſt on it, that it is a new Operation, until they make it appear when, and by whom it was done before. But ſuppoſing it had been attempted, as they pretend, five hundred Times in *France*, and always miſcarried, then it's plain (from my Succeſs) that they did not underſtand what they undertook: And ſuppoſing that they always ſucceeded, then it's certain that our *Cutters* never heard any Thing of it, otherwiſe, they cannot well anſwer for not putting it in Practice ſooner, by which the Lives and Health of many might have been preſerved, that fell a Sacrifice to Antiquity.

This is fully confirmed by the following Story, *&c.*

When I preſented the firſt two Patients I had Cut, before a very publick Company, the Phyſicians then preſent were all very well pleaſed, both with the Newneſs of the Method, and Compleatneſs of the Cure: But when one of the *Cutters*, that was preſent, had viewed the *Cicatrices* of the Wounds, he very modeſtly aſſerted that they appeared to him to be made with *Cauſticks*; (by which he inſinuated that there had never been a *Stone* drawn through theſe Wounds, but that I had only hired the poor Boys to permit a *Cauſtick* to be laid on, and then ſhewed the *Cicatrices* to impoſe on the World) upon which I told him, that it gave me very little Concern how they appeared to him, becauſe it did not at all alter the Caſe; however, I aſ-

ſured him that I made an Inciſion, where he ſaw the *Cicatrices*, as deep as the Cavity of the *Bladder*, and drew the *Stones*, then on the Table, thro' the Wounds. If he would not believe me, I deſired him to ask the Patients themſelves, one of which was betwixt ſeven and eight Years of Age, and conſequently could not keep ſuch a Secret as he ſuppoſed; and the other was between ſixteen and ſeventeen, and conſequently was able to give a reaſonable Account of what was done to him; but if he would not depend on their Words, he might ask a Phyſician then preſent, who ſaw one of them Cut. Each of whom affirmed the Truth of what I had related, notwithſtanding of all which, he ſtill perſiſted in ſaying that theſe *Cicatrices* appeared to him to be made with *Cauſticks*, which ſhews how little that great Man was acquainted with either artificial, or accidental Wounds of theſe Parts, and alſo how unwilling he was to allow any Thing to be true, tho' never ſo well atteſted, that ſeem'd to oppoſe his ſet of eſtabliſh'd Notions.

Infœlix eorum Ignorantia, qui ea damnant quæ non intelligunt.

From all which it's very evident, that tho' this may not be a new Diſcovery in *France*, *Holland*, or *Muſcovy*, yet it's perfectly new in *England*.

Obj. 9. That tho' it ſucceeded in Boys, yet it wont in Men.

Anſ. Before I made this Operation, it was the univerſal Opinion of the Surgeons, that it was impracticable in either

ther little or great Bodies: But now I have ſucceeded in ſmall Bodies, they ſay I cannot make the Operation, or it wont ſucceed in Men.

I have a great deal more Reaſon to differ from the received Opinion in this, than I had in the former Caſe, becauſe I am perſuaded (by the Experience I have already had) that I can cut Men after the ſame Manner, with as much, if not more Eaſe than Boys; and that the Cure would ſucceed as well, I think, is very evident, from the forementioned Inſtances of random Wounds of the *Bladders* of Men, made with Swords, Bullets, *&c.* being happily and perfectly cured.

By the dexterous Management of this Argument, I loſt a very good Patient in *April* laſt, and the poor Gentleman (in all human Probability) his Life.

Obj. 10. That the common Paſſage of the Urine being uſeleſs for ſo long a Time, the Gravel, Slime, and clotted Blood having no Vent but thro' the Wound, muſt ſubſide, and may form a new *Stone*, whilſt you are curing the Wound.

Anſ. This is a very plauſible Objection, but Experience ſhews there's nothing in it.

Sed valeant iſtæ ex fragmentis Authorum, &c. *quæſitæ objectiunculæ quando ſecus eſſe occulari fide docemur.* Roſſet.

SECT. XIV.

Various Cauſes of Death, which cannot be attributed to the Operation.

WHEN the Operation is not made as it ought to be, it's certainly the Fault of the Operator, but ſuppoſe it's made with the deſired Succeſs, yet the Patient may not recover afterwards for the following Reaſons, *viz.*

1. When there happens to be *Stones* alſo in the Kidneys, or *Ureters*.

2. When the *Kidneys*, *Ureters*, or *Bladder*, are ulcerated, or impoſthumated.

3. When the Conſtitution of the Patient is broke by too long delaying the Operation, or by taking vaſt Quantities of Stuff, in hopes to diſſolve it.

4. When the Patient is too old, or too young.

5. When the Patient is ſubject to Convulſion Fits beforehand.

6. When any other conſiderable Diſeaſe troubles the Patient at the ſame Time.

7. When the *Stone* is monſtrous large.

8. When they are not taken due Care of afterwards, *&c.*

SECT. XV.

Where to make the Punction of the Bladder *in a Suppreſſion of Urine.*

IN a total Suppreſſion of Urine, the *Bladder* is to be punched by the *Trocquart* and *Canula*, in the ſame Place where the Operation for the *Stone* is made, and is preferable to the Punction of the *Perinæum*, for the ſame Reaſons that the high exceeds the low Operations.

SECT. XVI.

CONCLUSION.

HAVING thus evidently proved from Reaſon and Experience, that this Method is not only new, but preferable to all others; I ſhall conclude with *Marianus S. B.* Advice to thoſe that have a Mind to ſtudy *Lithotomy*; and *Roſſetus*'s Wiſh for the farther Improvement of this Operation.

" *Qui hanc Artem exercere voluerint, ne dedignentur,*
" *ſi ipſam ignoraverint, ſibi aliquem præceptorem parare,*
" *à quo modum operandi & utendi Inſtrumentis fideliter*
" *ediſcant:*

" *ediſcant: cum talismodi Operatio non circa bruta, ſed*
" *rationalia Animalia verſetur, quæ circa ſi qui, quod*
" *neceſſarium eſſet, hallucinarentur, ad Charonta miſer-*
" *rimum hominem migraturum propria ignavia crucia-*
" *bunt, pro cujus vindicta non ſolum Cæli, elementaque*
" *aderunt, ſed impoſterum Cruciatus Gehennæ.* Marian.

" *Qui melius, facilius, compendioſius & tutius commen-*
" *tari ad hoc quidpiam poterit, id bona fortuna & ſine*
" *invidia ad publicam utilitatem faciat opto.* Roſſet.

APPENDIX.

R. *Roffeus's* Book *De Partu Cæſario*, (in which he propoſes this new Method of Cutting for the *Stone*) being ſo very excellent, and ſo very hard to be met with, I thought I could not oblige the Reader more than by reprinting, all that he ſays about it, in the ſame Order it was wrote; that thereby every one may ſee, what an ineſtimable Jewel has lain neglected, for above one hundred and thirty Years, in the Duſt of Antiquity, and there it might ſtill have lain, had not I both improved, and ſucceſsfully executed his Deſign; by which, we ought to be encouraged to ſearch more carefully (than hitherto we have done) into the Relicts of thoſe Antient and divine Men, inſtead of contemning them, as the Faſhion is among thoſe who know little, and have read nothing; and who knows what farther Diſcoveries may ſoon be made?

De

De Analogica Comparatione uteri ſecti cum inciſione veſicæ calculoſæ.

"IGITUR nunc comparemus noſtram hyſterotomiam
" rari, ſed nonnunquam neceſſarii operis exemplum
" cum utriuſque generis cyſtotomia vetere ſcilicet, ac nova;
" frequente quidem utraque, ſed ſæpe non valde neceſſaria,
" ſæpiſſime vero mortali. Suſpectior enim utraque eſt
" multis de cauſis noſtra ſectione: attamen hinc non pau-
" ci evadunt ſpem meliorem noſtro operi promittentes.
" Primum enim hic dividitur quidem uterus ſed qui pars
" eſt mulierum individuo non multo magis neceſſaria, quam
" fortaſſe ſuum unicuique vito ſcrotum. (nam hic de te-
" ſticulis ſciens taceo, nimirum parte inter principes a mul-
" tis numerata, deque ipſo cole, quibus tamen omnibus
" Aſiaticorum eunuchi graviſſimis quibuſque laboribus ad-
" dicti facile carent.) Illic autem veſica (citra cujus perpe-
" tuum miniſterium ne horulæ quidem momentulo inculpa-
" te vivere quiſquam poteſt) atrociter pernicioſeque vulne-
" randa proponitur. Id autem ita ſe habere vel ex Galeno
" conſtat, libro de ſectione vulvæ. [Cum veſica (inquit)
" ad portionem omnium aliarum partium augeatur, ut quæ
" omnibus ætatibus æqualiter ſerviat, matrix, neque dum
" adhuc augentur animalia, neque dum jam ſenuerunt ne-
" ceſſarium habet, ut actionem ſuam obeat. Sed nec obit
" quidem ſemper (tempore ad fœtificandum idoneo) rite.]
" Hæc

" Hæc ille. Inde eſt opinor, quod is cum Hippoc. aphor.
" 18. lib. 6. connumerans partes non citra perniciem inci-
" di ſolitas utpote veſicam (primo loco) cor, diaphragma,
" & cæteras, uteri tamen non meminerit.

" Secundo matrix poſt ſolerter apertam in abdomine gra-
" vidæ, & fruſtra parturientis fœminæ latam velut feneſtram
" facta conſpicabilis, ſeipſam chirurgo vel nolenti primam
" obtrudit, quo illi placet loco, ſpatioque oculis conſide-
" randam, digitis notandam, & ferro manibus cautis ap-
" tato ſecandam; idque evidentiſſime, nempe cum enor-
" miter turget parturienti. Veſica autem in utroque com-
" muni modo operandi (nam alium introducere medita-
" mur) integro abdomine profundiſſime ſub oſſe pubis la-
" tens, vacuato per intromiſſum catheterem (ut fit ante
" ſectionem) lotio magis tunc quam antea detumeſcit, &
" flaccida redditur, ſic ut ſenſum peritiſſimi cujuſque ope-
" ratoris non raro effugiat. Unde fit ut calculus ſæpe gran-
" dis nec digitorum, nec catheteris percuſſatione certò de-
" prehendi poſſit, (rugis forſitan depletæ & contractæ ejus
" intervenientibus) aut deprehenſus parti ſecandæ admove-
" ri nequeat, aut admotus prehendi non poſſit, aut præ-
" henſus auferri non ſuſtineat, tum præ ſui magnitudine,
" tum præ emiſſarii etiam quamlatiſſime per ſecuritatem li-
" cet facti anguſtia, nempe ſtrictiore, quàm ut per eam de-
" trahi lapis ſæpe non unus ſperetur; ſic adeo ut ſit tunc
" incœpto deſiſtendum, vel quampericuloſiſſime amplian-
" dum vulnus, reſumpta novacula, vel dilatatorio violen-
" tiſſime divellenda pars non modo colli veſicæ multa, ſed

" corporis etiam membranei non exigua, ut in eorum fre-
" quentiſſimis cadaveribus videre eſt, quos eo laniatu excar-
" nificatos fuiſſe quotidie conſpicimus, mille prorſus modis
" graviore, quam eſſe poſſit abdominis, peritonæi, uteriquè
" ſectio tota.

" Tertio veſicam ibi (ut vulgo fit) ſecturos non modo
" venas, & arterias parti ſecandæ ac vicinis pleriſque perne-
" ceſſarias, multas ſanè, nec parvas præſcindere oportet,
" ſed etiam ſphincteris veſicalis, aliorumque muſculorum
" & perinæi fibras, ut de aliis quibuſdam corporis inſtru-
" mentis, deque ipſis adeò virorum genitalibus vaſis, eò
" fere pertinentibus, & ibidem lædi obnoxiis, deque recto
" inteſtino ſæpe varicibus, condylomatis, & hæmorrhoidi-
" bus turgidis laborante taceam. Qui verò uterum ſecat,
" talium partium offenſionumque ſecurus operatur, ſi quod
" de venis & arteriis in ſecunda tractatione ſatis probatum
" eſt, rurſus in dubium non revocatur.

" Quarto, mox ubi alveolati catheteris intromiſſione,
" novaculæ vulneratione profunda, & dilatantis organi dila-
" ceratione carnificiaria ægre tandem patefactus in veſicam
" ingreſſus eſt, & procuratum non unius generis ferramentis
" loco tam periculoſo emiſſarium, ut per id extrahendis
" grandibus & ſepe numeroſis ſaxis via vi fiat, quantæ (per
" Æſculapium) & molis, & doloris, & novi periculi rurſus
" eſſe comperitur, illas rupes in ſuis fodinis vagantes, &
" uncum forcipemve ſæpe eludentes, caute (ut decet) præ-
" hendere, ſenſim emovere, apte ſubvolvere, inoffenſe ex-
" trahere? Id fit (inquies) ſedulitate quanta licet maxima.

" Fit

" Fit ſane (lector humaniſſime) & ignoſcendum fateor ſi
" parum vel ſic id fit bene, quando melius fieri non poſſe
" putant, quod quomodocunque fieri neceſſe eſt. Certe
" parum facili negotio, & minus adhuc tuta ſpe talis perve-
" ſtigatio machinarum ferrearum percunctatione facta, nec
" aliter certo fieri patiens, multo plures poſt ſe calamitates
" comites habere ſolet, caſque primis immaniores, adeo ut
" ſæpe contingat præhenſam his, atque illis inſtrumentis
" cum calculo partem veſicæ non paucam lacerari, & tam
" conſpicue cum eo agnitam extrahi, ut inde neceſſarius ar-
" guatur ſucceſſiſſe interitus: cujus maleficii criminatio-
" nem quia aliter effugere nequeunt, eludunt ſæpe artifices
" compoſito ad id figmento pelliculæ ſcilicet neſcio cujus
" calculos creſcentes veſtientis.

Vafrum eſſe figmentum, calculos veſicales membranis circumveſtiri.

" SED qua obſecro ex materia, aut quomodo tales tu-
" nicæ in eo ſpatioſo, & libero veſicæ capacis loco
" creſcere poſſent, ut iſti cauſantur? Aggeſtúne pituitoſæ
" materiæ illuc cum lotio venientis? Illud opinor nemo
" concedet, licet inde fiant creſcantque calculi, à regimine
" naturæ bene operantis deſtituti. Nam veluti cum lotio
" venit ea pituita, illique toti ea tota intra veſicam permiſ-
" cetur, ſic etiam cum ea confuſa effluit (licet poſtea ab
" emictione

" emictione ſeorſum ſubſideat) nec ei mora ſuppetit ſuffici-
" ens, & neceſſaria, ad converſionem ejus in pelliculam,
" aut pelliculæ in concretionem cum veſica ſimul & calculo
" ut contingit aliis complurib̃us in locis, ipſoque interdum
" utero ait Hippoc. epid. 5. in quibus calculi nonnunquam
" fiunt ex tenace humore diu deſidente, & tandem affixo,
" non autem vago, & cito transfluente, ut fit in horas per
" veſicam. Præterea quis unquam ex ea pituita (conſoli-
" dationes, ne dicam aſſimilationes, & concorporationes
" ſemper impediente, cicatriceſque ac multo magis mem-
" branas fieri generarique vetante ad quas deſiccatio requiri-
" tur) aliquid membraneum fieri vel vidit, vel ſcripſit, vel
" imaginari poteſt? Cedo enim ubi ejus membranæ calcu-
" lum veſtientis, aut veſtituræ origo, & baſis futura eſt? ad
" calculumne, an veſicam? Si enim ad calculum corticis
" ſuperadditi modo grandeſcentem ea baſis pertineat, quî-
" nam calculos, quibus adhæret, & quos undique ambit
" creſcere non vetabit, cum tamen creſcant? Media enim
" interjacebit inter ipſos, & pituitoſas materias calculis aug-
" mentum præbentes. Sed quis ex ſaxo membranam fieri,
" aut ex eo naſci tunicam ullam nugabitur? Si autem ea
" baſis membranæ calculariæ ex ipſiſſima veſica naſcitur,
" quî fiet ut ejus adhuc naſcentis, & puſillæ indumento ullus
" omnino calculus tegatur? Sed ut parvæ & mediocres la-
" pidem magnum non caperent, exiguum vero non ſine-
" rent adaugeri, ſic eædem mediocres, & magnæ ex veſi-
" cali ſcilicet corpore productæ, creſcentem (ſi diis placet)
" intra ſe calculum conciperent, cujus tamen materia ſta-
" tuitur

" tuitur pituitoſus, & tenax humor, qui niſi calculo jam
" incœpto aggeretur, creſcere nequit: ejus autem aggeſti-
" onem eæ tunicæ illum involventes impedirent. Sed quis
" à principio ullam magnam dixerit membranam? nempe
" quanta fingitur magnos calculos complecti? Præterea, ſi
" ante calculi in ſeipſam ingreſſum membrana magna fuit,
" quo favore rumpi voluit ut pateſcens grandem calculum
" acciperet? quem rurſus ſi accepiſſe ſomnietur, quomodo
" iterum connivere poterit, ut eundem intra ſe undique
" claudat, aut ſi eum circumcirca ambiat, quomodo eum
" deinceps partibus vicinis non facit eſſe innocuum? Dicent
" fortaſſis ex ea pituita illas fieri. Bona verba. Nam quis
" ex ea mere excrementitia membranas iſtas tam ſolidas vul-
" go apparentes, ut à veſicarum corporibus non diſ-
" tent, & à calculis rumpi, & atteri nequiverint,
" fieri generarique poſſe dixerit: ſi verum eſt orta quævis
" ſuis principiis reſpondere? Non enim videtur ulla earum
" membranarum quas iſti impoſtores (pace bonorum dic-
" tum ſit) nobis obtrudunt, diverſa eſſe à ſolido veſicarum
" in recenter mortuis inventarum corpore, & ſubſtantia,
" qualem (nempe ſpermaticam) à meris excrementis gene-
" rari nemo medicus fatebitur, cum nec ab iiſdem ſolis fiant
" hyperſarcoſes flaccidæ, & inſenſiles, niſi ſimul accedat be-
" nigni, & prope aſſimilandi alimenti affluxus: Quanto er-
" go minus tam ſolida membranarum (ut vocant) corpora
" inde conflabuntur, adeo matrici hærentia, ut non niſi
" matrice ſequente cum vita avelli poſſint? Ad hæc, quid
" tunc veſicali ſectione opus eſſet, ſi calculus membrana

" veſtiretur? nam ea molliculo lævore ſuo, calculi cum ve-
" ſica contactum, attritionemque prohiberet, & conſequen-
" ter dolorem auferret, qui tamen tunc eſt intolerabilis, ut
" ex eo ſolo maxime patet, quod miſeros calcularios in hoc
" ſectionis præcipitium, velint nolint, adigit. Sed hoc præ-
" cipue (illis ipſis judicibus) eorum mendacium aperte con-
" vincit, quo illa ſua homicidia excuſant. Omnis enim
" calculus quem extrahunt, ab iis prius quam extrahatur ſo-
" let deprehendi ejus ad catheterem ſonoro illiſu. (Alio-
" qui enim ne id quidem tentant) Atqui nullus membrana
" circumveſtitus calculus poteſt deprehendi eo ad cathete-
" rem illiſu ſonoro, (interpoſita enim membrana id vetat.)
" Nullus igitur ab iis extrahitur membrana circumtectus
" calculus. (Quicquid nobis contrà garrire velint.) Sed eam
" illis excuſationem relinquo, precario donans mentientibus
" tales tunicas in veſica aliquando reperiri, quæ calculos lo-
" ricent. Certe eo ipſo quod hanc operationem eorum ſen-
" tentia difficiliorem adhuc, imò vero mortalem nobis fa-
" ciunt, propoſito noſtro allegorico validius patrocinium
" accedit. Hic enim calculus ad veſicam ex hypotheſi con-
" corporatus, non niſi cum ipſa veſica, aut ejus bona parte
" pernicioſe extrahi patitur. At uterus noſter ſectus mox
" per plagam vixdum abſolutam, ſed duntaxat medio de-
" ſignatæ ad oculum ſectionis ſpatio incœptam explodit ſuâ
" ſponte fœtum, non modo ſi mortuus jam eſt, auxilium
" manus ſequentem, ſed multo alacrius, ſi adhuc vivit, ut-
" pote auras ultro affectantem, & conantem (quacunque li-
" cet) egredi: quod ubi factum eſt, matrix ſeſe in arctum

" cogere

" cogere festinat, nullius ut dictum est futuræ, & propemo-
" dum externæ opis egens. Sed ad rem intermissam revertor.

" Quinto igitur notum est, tam ex membraneo in calcu-
" losorum viventium urinis pure, quàm ex contemplatione
" vesicarum intra eorumdem cadavera, vesicas rarissime ca-
" rere ulceribus factis à lapide jamdudum adaucto, & sæpe
" scabro, inæquali, aculeato, spinoso: utque ante sectio-
" nem ulceribus caruerint, tamen omnino futurum est, ut
" iis sint laboraturæ, idque eo loco, in quem præter partis
" affectæ pus, sentina totius corporis velut in publicam clo-
" acam corivatur: à cujusmodi sordium illuvie, quam sint
" ea ulcera curatu difficilia, indicat miserabilis illa, & ubi-
" que frequens multorum calculosorum (qui secti sunt) que-
" rela, de perpetuo urinæ per perinæum stillantis impluvio,
" ne quis mihi postea mearum Cæsarearum hernias expro-
" bret, leve certe præ ista calamitate malum, & si non evi-
" tabile, tolerabile tamen. Uterus autem Cæsarearum sa-
" nus, & vigens, quo est intus positu, non habet quibus
" ex locis supra sui sectionem positis excipiat inferioris situs
" ratione fluxionem excrementorum, in eam sui partem,
" quæ excisa est, & uniri festinat; imò vero foras depositu-
" rus est sponte, cito, facile, innocenter, sordes emanaturas
" ex sauciato loco, ulceribus inimicas, vicina, declivi, sibi-
" que subjecta, & tunc latissimè patente pudendorum puer-
" peræ via.

" Sexto, cum exploratissimum sit uteris parturientium
" mature, prudenterque sectis incolumes supereſſe suas acti-
" ones in fœtificationibus sequentibus (nisi quid aliud à sec-

" tione

" tione obſit) contingat autem quam ſæpiſſime apertis ſe-
" mel calculoſis, ut non modo perinæo coalitum ob ſupra-
" dictas cauſas recuſante, urina odioſe tota vita ibi perfluat,
" ſed etiam ſphinctere veſicali (cujus functio eſt contractu
" ſuo lotium retinere) lacerato, ſecto, rupto, nec ſibi re-
" ſtituto, ob idque officium ſuum vix unquam facturo, urinæ
" per colem incontinentia moleſtiſſima ſit, nemini dubium
" eſſe debet novam hanc noſtram hyſterotomiam vetere il-
" la tot doctiſſimorum chirurgorum cyſtotomia (tam peri-
" culoſa ut eam aggredi vel ipſe Hippocrates chirurgôn chi-
" rurgotatos metuerit) & leniorem, & tutiorem haberi, ne
" etiam prorſus utiliorem, magiſque neceſſariam adjiciam:
" præſertim, cum hæc citra geminæ mortis interminationem
" parturientibus nunquam aliter parituris jamjam fieri impe-
" retur: illa autem vel quandiutiſſime differri, vel ſæpe om-
" nino prætermitti patiatur, idque ſæpe non valde magno
" diſpendio ſanitatis eorum, qui eam reſpuunt. Sunt enim
" qui eandem ſubeant leviculi interdum mali tædio, aut di-
" uturnæ moleſtiolæ metu potius, quam neceſſitate coacti:
" licet quibuſdam miſera crux vocetur, & ſit. At novi qui-
" bus per triginta, & eo plures annos (ut ex ſignis patho-
" gnomonicis jamdudum conſtiterat) calcularii, non miſere
" vivere contigit, quibus alio quodam fato mortuis, & aper-
" tis calculi in veſica non exigui inventi fuerunt. Attamen
" ſunt etiam inter eos qui leviter eo morbo laborant, non-
" nulli qui mali creſcere minantis metu ſatis levi perterrefac-
" ti, id tormenti ſubire non recuſent, funeſto tamen, &
" frequente omnis ordinis, ſexûs, ætatiſque exemplo. Inde

" forſitan

" forſitan eſt, quod Hippoc. (ut aphor. 18. lib. 6. ſcripſit)
" veſicam ſauciatam ſanari poſſe deſperans, calculoſos nec
" ipſe curandos ſecare ſuſceperit (ſuo nomini in re tam pe-
" riculoſa premetuens, idque opus ſine invidia iis permit-
" tens qui illud exercere profitebantur contentus modeſte
" ſuam Spartam tueri) nec à ſuis jureiurando ſolemni vetitis
" ſit paſſus obiri; licet poſt eum aliquot celebres chirurgi,
" & medici id auſi ſint, editis etiam in eum finem libris, ex
" quorum monumentis deſumpta ſunt quæ Celſus Latinus
" Hippocrates dictus, & Ægineta, atque alii eos ſequuti de
" hoc chirurgemate prodiderunt, ſed tunc adhuc valde fri-
" gide, ut ex eo conſtat, quod infra novem, & ſupra qua-
" tuordecim annos, eam curationem ne tentandam qui-
" dem eſſe velint, cum tamen hodie à tribus mox, & infra
" annis ultra ſeptuageſimum id fiat. De qua tam brevi
" apud Celſum ætatis ad calculos eximendos conceſſæ præ-
" ſcriptione, ejuſque ratione problema, & ejus arbitrium
" ad hujus opuſculi finem rejeci.

Ex auctario; facilius, & tutius per imi abdominis ſectionem, quam per perinæi excarnificationem calculos è veſica extrahi poſſe, & ad hoc hiſtoriæ tres.

DUO uſurpari hactenus conſueverunt ſectionis calculariæ modi. Vetus Celſi, & priſcorum eademque

" Guidonis & recentiorum, ac nova Marinii Bartolitani.
" Hæc omni in ætate adminiſtratur, illa non niſi à nono ad
" decimum quartum olim fiebat, poſtea tamen aliis etiam
" in ætatibus uſurpata eſt. Nova autem ideo excogitata
" fuit, tum quia miſerandum videbatur calcularios omnes
" ante novennium, & poſt decimum quartum annum pro
" deploratis relinqui, tum quia facilior, & tutior priore ere-
" dita eſt. Sed utraque ejuſdem loci ad perinæum ſectione
" obiri conſuevit. In ea autem quam proponimus alium
" locum aperiendum eſſe, idque tutius, & facilius docere
" meditamur. Tot ergo, tamque gravibus cauſis metuendi
" ab utraque hac tam formadibili cyſtotomia adductus, &
" miſeratus hinc lethales multorum alterutro modo ſecto-
" rum cruciatus, illinc plurium langores perpetuos, ſecari
" quidem debentium, ſed iis veſtigiis à ſectione deterrito-
" rum, quæ plurima cyſtotomos verſus, pauca vero retror-
" ſum ſpectare ſolent, perſæpe cogitavi de alia quadam mi-
" tiore cyſtotomias adminiſtratione. Uni enim vitio variis
" remediis obſiſtere fas, & jura medicorum ſinunt. Modo
" ut quam facillimis & tutiſſimis id fieri poteſt certatim ten-
" tetur. Si autem vetus illa Celſi, & Guidonis in Mariniа-
" nam tranſiit, cur non etiam ipſa in meliorem (ut ſpero)
" vertetur ? Explorata porro tandem hujus ſectionis Cæſa-
" reæ veritate, & ſumpta ex partibus quas utrobique incide-
" re oportet indicatione, per abdomen cyſtotomiam abſol-
" vi fœliciter poſſe jamdudum augurabar. Sed operis no-
" vitas, & thraſonum quorundam os infræne, mihi ſilenti-
" um imperabant.

Hiſtoria

Hiſtoria Prima.

"INTERIM incidi commodum in quendam Petri
" Franconis libellulum de Herniis gallice inſcriptum,
" ubi celeberrimus ille Iatrocelicus hiſtoriam memorabilem
" contexit cujuſdam bimi infantuli, veſica per diviſum á ſe
" juxta pubem hypogaſtrium aperta à calculo liberati, obſe-
" crantibus ideo id parentibus, quòd aliter ei ſectori nihil
" ſucceſſerat, omnia prius fruſtra experto, ut ad perinæum
" calculum admoveret. Id vero unice miror, cur deinceps
" id tentari dehortetur. Invidetne hominum ſocietati bo-
" nus ille vir eam inventi (licet fortuiti & coacti) fœlici-
" tatem? aut ſibi, & collegis eſuritionem præmetuit? aut
" notam ipſorum cenſoriam, & ab eorum ſymphratria, &
" collegio exilium formidat, tanquam cornicum oculos con-
" fixerit? Quidnam enim poſtea id jam uſu cognitum pro-
" fuiſſe, rurſus profore vetabit, viribus ægri conſtantibus,
" quod attritis iiſdem miſere vexato, jamque ſemineci infan-
" tulo, profuiſſe conſtitit, aliis omnibus fruſtra tentatis?
" Diſſuadet opinor, quod infantulus ab ea ſectione ægrota-
" verit: atqui niſi prius idem graviter ægrotaviſſet, eò ven-
" tum non fuiſſet. Interim cogitandum eſt quin male ha-
" buerit fieri non potuiſſe, ſed mirandum etiam quod pejus
" ei non fuerit, cum bimulus tantum eſſet, cum diuturno
" dolore fractus, cum recenter antea fatigatus, intromiſſi-
" one precedente digitorum ſectoris craſſorum in ægrotantis
" tenellum podicem, & appreſſu pugni ejuſdem in hypogaſ-
" trium,

" trium, ut ſolent in eo ipſorum veteri opere: quæ omnia
" illum potius, quàm ſectio hypogaſtrica affligere, & mi-
" rum etiam cur non ad mortem cogere potuerunt.

Secunda Hiſtoria.

"SED ne quis objiciat non uni duntaxat obſcuri forſan
" artificis experimento fidendum eſſe in re tam peri-
" culoſa, & ad omnes ex æquo ordines pertinente, audiat
" id quod nuper Franconi non infœliciter ſucceſſit, etiam
" olim antea fauſte ſucceſſiſſe (ut à quibuſdam interpreta-
" tum fuit) in totius orbis celeberrima medicorum Pariſien-
" ſium ſchola, idque Regis, ac Senatus authoritate tam
" ſolemniter, ac palam, ut in publicas hiſtorias regeſtum
" id fuerit à Monſtreleto rerum ſui temporis Gallicarum no-
" biliſſimo tunc hiſtoriographo. In cujus tamen ſcripti ve-
" ram interpretationem quid utramque in partem probabilius
" diſſerendum, tandemque certo conſtituendum nunc pu-
" tem, cúrve id opus per imum ventrem (ut quibuſdam &
" mihi ipſi aliquando viſum fuit) cæptum, peractumque fu-
" erit, brevi ac dilucido problemate in hujus opuſculi calce,
" majore otio examinabo.

" Militarem arcigerum Mudonenſem (*Franc archer de*
" *Mudon* Galli vocant) ob latrocinia furcis adjudicatum
" medici Pariſienſes calculo laborare cum reſciviſſent, à re-
" ge, & ſenatu ſibi vivum donari obtinuerunt, ut in eo pub-
" licæ utilitatis cauſa aperiendo, periculum facerent calculi,

" novo

" novo (ut credi par eſt) & mitiore, ac tutiore quam prius
" modo extrahendi: impetrato illi à Rege (ſi ſuperſtes eva-
" deret) vitæ beneficio, & à ſchola liberali aliquo munere,
" pro ea tolerantia propoſito. Quo facto inteſtinis (ut
" vult hiſtoricus) repoſitis, plaga conſuta, ſanitateque reſti-
" tuta, vitam ſibi ea patientia cum donario redemit. Ali-
" quid miræ raritatis fuiſſe oportet, quod memoriæ manda-
" ri dignum cenſuerit hiſtoricus. Nam & Paræus de mon-
" ſtris ſcribens, lib. 24. ſui operis, mentionem ejus velut
" miraculi facit, quod tamen mirándi nihil habet ut poſtea
" docebimus. Eo igitur Franconis exemplo contentus, ad
" rationes exemplis quibuſlibet non inferiores accedo, qui-
" bus innituntur fiducia ſubvertetur, qui veſicalem calculum
" ea quam eligimus parte extrahi poſſe pertinaciſſime negant.

Solutio quarumdam objectionum in cyſtotomiam hypogaſtricam productarum.

"CONTROVERSIAM movent, quòd locus in hypogaſtrio
" quantumlibet imus, longe à collo veſicæ abeſt,
" prope quod calculus ſedet, & unde ad vulnus ſuperius ex-
" terne factum ſubduci non poterit, ut eo patente exima-
" tur. At vero ſi pateat ſatis plaga, ut per eam intromiſſi
" alterutrius manus digiti vel forceps ad id accommodus cal-
" culum contrectare & prehendere poſſint, ſubjectis ad po-
" dicem alterius manus digitis, ſurſum ad plagam uſque

" ſubducetur,

" ſubducetur, per eam tunc facile extrahendus, præſertim
" ſi veſica ante ſectionem humore oppleta, ſupra pectinem
" (ut poſt dicetur) ſubmota fuerit. Alterum eſt quod op-
" ponunt, nempe priore illo dato, fieri tamen non poſſe,
" ut accepta ubicumque velim plaga in hypogaſtrio, perti-
" nere poſſit ad veſicæ collum, aut ſphincterem aperiendum,
" ubi duntaxat tuto ſectio fieri poteſt. Ad quod probandum
" tuentur ſe Hippocratis authoritate, lib. 6. Aphoriſ. Aphor.
" 18. Sed poſteriore hoc primùm ſoluto, ad prioris ſolutio-
" nem deinde veniemus, rationem, viam, modumque ſcri-
" bentes quibus id ſperari, obtinerique poſſit, quod volu-
" mus.

Veſicam parte (ſi quis per hypotheſin id velit) membranea lædi abſque pernicie poſſe.

"SUNT enim plerique (& in iis Galenus) qui Hippo-
" cratem excuſare laborent adverſus cyſtotomos, quod
" cenſuerit veſicam inciſam non ſanari: cum tamen ipſi eam
" à calcularíis ſectoribus tuto dividi paſſim videant, quod
" nec is ipſe ignorare debuit, cum id opus ſui temporis hel-
" colithis peritioribus ἀφόβως obeundum concederet. Ex-
" cipiunt enim Hippocratici, præceptorem de ea parte
" membranea nerveaque (ut inquit alibi Galenus) atque
" ſpermatica, & ob id conſolidari recuſante Aphor. 18. lib.
" 6. intellexiſſe, & non de ea quæ ab iſtis ad veſicæ cervi-
" cem

" cem dividitur in lapide detrahendo, quæ carnea, & muſ-
" culoſa eſt tota. Idem ait poſt Hippocratem Ariſtoteles,
" & Cornel. Celſus lib. 7. cap. 26. [Læſa veſica (inquit)
" nervorum diſtentiones cum periculo mortis excitat.] Sed
" ut de membranea tantum intellexiſſe Hippocratem con-
" cedamus, tamen aphoriſmus ille univerſim, & abſolute,
" ac ſemper verus non eſt. Liceat ergo hic nobis cum bona
" ſcholæ divinantis venia paciſci, cum divi Hippocratis ve-
" nerandis manibus, judice etiam Galeno ejus myſtagogo.
" Quo enim Aphoriſmo id denegat veſicæ Hippocrates,
" idem ipſe eodem illo ſubtrahit expreſſis verbis cerebro, &
" alio libri de locis in homine loco, ejus membranis.

" At Galeni teſtimonio conſtat, non modo in membra-
" narum cerebri ambarum (quæ haud dubiè membraneæ, &
" ſpermaticæ ſunt) corpore, ſed etiam in cerebralis paren-
" chymatis (unde magna vis ſpermatis eodem alibi authore
" profluit) concremento, non mediocrem ejus ſubſtantiam,
" & læſam & ablatam fuiſſe, cum in Smyrna Ioniæ, ſub
" præceptore Pelope, tum alibi, ſuperſtitibus tamen ſaucia-
" tis. Id Smyrnei adoleſcentis vulnus ad cerebri ventricu-
" lum alterum uſque penetraviſſe Galenus ſcribit, cap. 6.
" lib. 8. de uſu partium. Quod à Fallopio haud ita pridem,
" & à Valeriola viſum ſcriptumque fuit, & ſuperioribus ad
" Caſtricæſaris & Rupellæ obſidiones bellis ſæpe obſerva-
" tum, mirantibus id, qui ea vulnera convaleſcentia tracta-
" bant chirurgis celebribus non paucis, quibus teſtes adhuc
" adſunt non modo ſauciati ſuperſtites, ſed etiam centurio-
" num, ducum, & principum ſuos ſatellites viſitantium

" præ-

" præcipui. Idem mihi exploratiſſimum fuit ante viginti
" annos in Jacobo Furnerio apud meos Pithuiricos viatore
" regio ſic ſauciato & me præſente, ac præſcribente, Com-
" pagneti Turræi manu percurato, facta ſubſtantiæ cerebra-
" lis ſub altero bregmatis oſſe inſtar nucis myriſticæ jactura.
" Hoc idem non modo de venis, & arteriis dicturus eram,
" cum vel membraneæ, vel membraneis corporibus non
" multum abſimiles, & pariter ſpermaticæ videantur, ſed
" etiam de tunica peritonæi, quæ Galeno in 7. de anatomi-
" cis adminiſtrationibus exactè membranea eſt: (ut de peri-
" oſtiis, & oſſibus ipſis taceam quæ idem in ſuis Aphoriſmis
" re-uniri poſſe negat, utens hoc verbo ὠ ξυμφύεται) qua-
" rum partium hæc per gaſtroraphas uterum in ramicibus cu-
" randis coaleſcebat, quamvis ſeminalis ſit, ut fieri olim ſo-
" lere docent Ægineta, & Celſus. Ex illis autem duabus
" arteria nempe & vena juxta cutem phlebotomo ſectis, ar-
" teria quidem ſæpe licet ægrius (ob motus celeritatem, &
" ſubtilis ſanguinis evibrationem) conſolidatur, vena autem
" quamſæpiſſime, ne dicam ſemper re-unitur, idque facillime,
" nempe ſolo linimenti appreſſu. Verum in iis omnibus
" mihi reſponſum iri prævideo, neque illud peritonæi coag-
" mentum fieri ejus ſola ratione, ſed muſcularium carnium,
" vel cutis epigaſtricæ participatione, neque hanc arteriarum
" & venarum reconciliationem earum peculiari cauſa fieri,
" ſed cutis ſuperpoſitæ, & coaleſcentis ſocietate. Quæ ob-
" jectio friget, cum vena non communem cum cute, ſed
" ab ea ſeparatam cicatricem ducat, ut in obeſis, aut valde
" carnoſis, videre eſt, venam nimirum ſectam, & re-unitam

" procul

" procul à cute remotam habentibus. Diviſas etiam ocu-
" lorum tunicas (maxime ceratoidem) utique ſpermaticam
" unione cicatricoſa ſanari notiſſimum eſt, licet ejus tenſio
" naturalis, & à ſubjectis humoribus extruſio, coalitui ob-
" ſtare videatur, quæ tamen tenſio coitioni laterum con-
" traria, abeſt à læſa parte membranea veſicæ, jam liberatæ
" lotio, & calculo: ſic, ut ab ea inanitate flacceſcens, in
" ſe mox redeat, ſponte utique tunc coalitura more prædic-
" to uteri ſecti: unde fit ut labra concidentia plagæ ultro ad
" mutuam unionem adducantur. Quid ergo ibidem vul-
" nus ſaneſcere prohibuerit? præſertim cum ea tam mere
" in viventibus non ſit membranea, nedum nervea, (ut fe-
" rè omnes & cum iis etiam plerumque Galenus cenſent)
" quàm tunc nobis eſſe videtur, cum ex cadaveribus ſuillis,
" aut bubulis exempta eſt, & multum, diuque ſaxo levi al-
" liſa, flatuque diſtenta, ac reſiccata pueris in ludicrum
" comparatur, vel pharmacopolis ad ægrorum fomenta pro
" utre ſiccatur, iiſdemque ut olim in Græcia, & nunc in
" Anglia ad enematum decoctiones concipiendas aptatur; ſed
" tanto intra animal vivens, aut mortuum craſſior, & con-
" fuſæ carnis modo quaſi compactior latet, quanto ex cor-
" pore avulſa percuſſa, inflata, ſiccata, exilior, & ad perſpi-
" cuitatem uſque exhauſto humore, mucore, lentoreque
" ſuo naturali tenuior conſpicitur. Nec vero eam (ut ne-
" que uterum) proſus excarnem (& conſequenter inconſo-
" lidabilem) dicere licet, cum ex Galeno (in methodo)
" carnium genus unum non ſit. Quædam enim ſunt pa-
" renchymaticæ, quædam hac vel illa fibroſa, aut membra-

" nea congestione variantes, nonnullæ musculosæ, quales
" demum propriissime carnes vocantur. Inde est quod
" idem libro de anatomicis administrationibus septimo, con-
" fidenter pronunciet non unam esse in iis carnium genera-
" bus substantiam, & colorem, cum ea quæ musculosa est,
" mollior, & rubicundior sit carnibus (inquit ille) ventri-
" culi, uteri, vesicæ, intestinorum.

" Quin vero nec perpetuum est quod idem Hippocrates eod-
" em Aphorismo indefinite pronunciat tenuibus intestinis non
" accidere, ut incisa coalescant. (Nam quod de labro, & præ-
" putio in Aphorismo subsequente legitur notius nunc est id
" aliter se habere, quam ut ab ullo negari possit) Galeni
" autem in eum Hippocratis locum officiosa interpretatio
" contra nos prima specie facere apparens, pro nobis stare
" videtur, contra istos spermaticarum partium in consolida-
" tionis pernegatione propugnatores, dum eam consolidati-
" onem vix, & raro ibi fieri, sed tantum per accidens fic
" fatentur, ut tamen fieri posse nequeant inficiari. Ejus ra-
" tio est, quia illic ubi est vulneratio, medicamenta vel nul-
" lo modo, vel non nisi incommodissime immitti possunt.
" At mihi etiam Galenus non invitus concedet, sæpe sine
" medicamentis ingestis à natura sola partes penitissime ab-
" strusas facilius percurari, quam à medicamentis externas,
" ubi facilis est ab ambiente offensio. (Eo facit exemplum
" modo allatum in capite vulneris uterini collati cum sto-
" machica plaga.) Inde est quod non modo crassa intestina,
" carnosiora sane, & medicamentis per clysteres admitten-
" dis aptiora, sed etiam tenuia (licet hoc ibidem perneget

 " Hippocrates)

" Hippocrates) quamvis membranoſiora, & penitus abdita,
" plerunque ſanari videamus, quæ ſauciata fuiſſe deprehen-
" dimus nonnunquam ab excrementis duntaxat, & exeun-
" tibus ſi delitescunt vulnera, plerunque etiam oculo recte,
" ſi late accepto ictu, vel patefacto orificio introſpectentur.
" Iis perſanandis ars naturæ ſubserviens cibum paucum, eu-
" chymum, molliculum, medicamentoſum præparat, ne
" multus, aut durus plagæ oras in tranſitu diducat, cacochy-
" muſve male alteret. Sed hæc omnia in veſica melius
" quam in inteſtino procedent.

" Primum enim non niſi tenuiora excrementa ad illam
" feruntur, nempe lotia, quæ pauca erunt ſi parum bibatur,
" ut ſuis ægris cyſtotomi imperant. Item non acria, &
" erodentia ſi modo ſuavia, & euchyma ſumantur, præpur-
" gatuſque fuerit æger ſectus, ut fieri ſolet, & maximè ſi
" ſanus eò venerit. Denique ſumendorum vim medica-
" mentoſam ad veſicæ uſque plagam ferri indicat lotiorum
" color, & odor, in iis qui Rhicum aut Therebinthinam
" ſumunt, ob alios urinalium partium morbos, huic malo
" ut aliis ulceribus utiliſſimam. Adde quod catheteræ per
" proximum colem, medicamentum nulla ſuarum virium
" parte privatum eo uſque tam facilè injici poteſt, quàm per
" clyſteres in craſſorum inteſtinorum receſſus; quodque in
" partem veſicæ ſuperius ſectam excrementa urinaria delapſu-
" ra non ſint, ſed in inferiorem, tunc utique incolumen, un-
" de omni momento effundi poterunt ſine noxa, pro arbi-
" trio ægrotantis, qui nimirum tunc illæſus erit (ut hic con-
" ſtituimus) ſphincteris muſculus voluntati obſecundans.

" Prætereo

" Prætereo ſciens facilem tubuli in pene retentionem, ſi
" fortè contingeret urinam male deſcendere, qua etiam cy-
" ſtotomi vulgares ſæpe uti ſolent ante vulneris coalitum.
" Hinc fieri videtur, ut in interna veſicæ parte (vitata inte-
" rim regione quæ ureteres excipit) tuto plagam duci poſſe
" ratio perſuadeat, & experientia comprobet.

Dioriſtica Aphoriſmi Hippocratici ex eodem ipſo, & Ariſtotele explicatio.

" SED ſi quis parum, aut iis rationibus, aut productis
" producendiſque exemplis credat, Hippocraticæ
" nempe authoritatis clavum (cui uni affixus hæret) nun-
" quam amittens, eum de manibus illi (non invito Hippo-
" crate) extorquebo, ſubſidiaria Ariſtotelis ope adjutus.
" Præſtat enim ut idem ipſe ſeipſum interpretari audiatur.
" [Vulnera (inquit ſecundo Prorrhetic.) magis lethalia ſunt,
" quæ in venas craſſas, in collo, & in inguinibus infliguntur,
" deinde quæ in cerebrum & hepar, poſtea quæ in inteſti-
" num, & veſicam. Sunt autem hæc omnia pernicioſa val-
" de, non tamen ita ut nemo ex iis evadat. Nam & loci
" qui hæc nomina habent multum inter ſe differunt, &
" iidem modi: multum etiam differt corporis ipſius ſtructu-
" ra.] Hactenus ille. Quamvis autem poſterioribus his ver-
" bis, ſibi ab Hippocrate caveri putent ii, qui veſicam inte-
" riore ſui parte non niſi pernicioſe incidi poſſe contendunt:

" Tamen

" Tamen Aristoteles 5. cap. lib. 3. de partibus animalium, " ubi quod Hippocrates de vulnere vesicæ lethali ἀδιορίστως " pronunciaverat, ad ejus membraneam partem (ut vulgo " fit) restrinxisset, videtur tamen mox aut ex ejus mente, " aut ex sua ipsius experientia ulterius progredi, dum ait; " [Vesica incisa non consolidatur, nisi in sui colli initio, " quamvis sciam accidisse, ut ejus vulnus aliquando occalue- " rit.] Sed valeant istæ ex fragmentis authorum quæsitæ ob- " jectiunculæ, & anxiæ earum ex libris confutationes, quan- " do secus esse oculari fide docemur. Quam in rem aliquot " historias proferre placet, ne Monstreleticæ dubiam ad- " huc fidem facienti, aut Franconicæ quæ unica satis pro- " bare non potest, nimium leviter acquiescamus.

Læsarum sine pernicie vesicarum in parte membranea historia prima.

" PARÆUS nulli non cognitus, & doctissimus ille Iatro- " chirurgus Fr. Rassius hujus historiæ testes mihi lo- " cupletissimi, utpote oculati fuerunt, quam ego tum ex " aliis compluribus, tum ex ipsa chirurgi ad medendum ad- " hibiti tripode, & verbis, & scripto ex ejus diariis fideliter " desumpto didici, & hic transcripsi, jam olim quidem au- " ditam ex ipsius vulnerati ore, sed nondum sat mihi (ut " ingenuè fatear) persuasam. Talibus enim in rebus mihi " imponi non facile patior.

" Aurelio civi *Queèr de cheſne* vocato hoſpiti floris liliacei
" Anno Domini 1360. die decima Februarii confoſſus fuit
" infra umbilicum venter pugione ſatis lato. Ei xix. diebus
" ac noctibus totis vulnere ſolo, nec prorſus alio meatu
" emanans lotium aëricam haud dubie læſam arguebat:
" quod cum merum exiret, ab ejus parte magis exangui &
" minus carnea jure optimo ſtillare conjiciebatur. Vulneris
" præterea accepti ſedes editior inſinuabat neceſſario id vi-
" cus parte ſui ſumma (qua minus verè carneum eſſe vide-
" tur) fuiſſe ſauciatum. Florentius Philippus chirurgus ſo-
" lers, immiſſo facillime per uretram argenteo ſiphunculo
" urinam deduxit, vulnuſque citiſſime percuravit.

Hiſtoria Secunda.

" HANC hiſtoriam placet hic attexere, quæ ſectioni
" veſicali ſupra ejus collum factæ favens, eadem
" opera pro calculi veſicalis extractione hypogaſtrica facit.
" Catharina Biard vidua Mathurini Serre domini hoſpitii
" dicti *les verds gallands*, in Bleſiæ ſuburbio dicto *Bourg-
" neuf*, ſexaginta ſex annorum per xx. annos tam ægrè, &
" duriter cacaturiebat, ut ſæpe toto menſe adſtricta, nec
" ſumptis ore catharticis quicquam proficiens, ſolo enema-
" tum uſu demiſſis ſtercoribus veriſſimos calculos, inſtar
" avellanæ, aut juglandis podice egereret. Accidit tandem
" ut vaſto, & duriore quam per aſciten aut tympaniten tu-
" more in ſpeciem prope ſcirrhoſo turgeſcens, mirata ſit per
" pudenda

" pudenda maſſam indigeſtam ſibi devolvi ; cui malo pro
" matrice præcipitata accepto, ea fieri quæ ad uteros prolap-
" ſos faciunt cum medicus juſſiſſet, nec hilum ea profeciſ-
" ſent, convocatis ſecum chirurgis Carlomagno & Jacobo
" Bellaiis communi ſententia agnoverunt eam maſſam ſpiſ-
" ſam, rubentem, carniformem, duobus pugnis majorem,
" inæqualiter duram, dumque tractaretur colliſionis ſonum
" auribus referentem, eſſe veſicæ calculis oppletæ corpus in-
" ternum, pondere calculorum eo depreſſum, laxatis ſcilicet
" ab eo faſce membranis, quibus oſſi pectinis adnectitur,
" adducta ſecum colli uterini parte non exigua. Sic igitur
" cum affecta parte cognito etiam affectu, ducta ſatis lata
" inciſione in ipſo veſicæ pendentis corpore, undecim cal-
" culi inde exempti ſunt, triangulares omnes, quorum non-
" nulli parvas pilas palmarias, quidam caſtaneas magnas, &
" mediocres æquabant, cum numeroſis arenis, quos omnes
" vidi, & tractavi. Sic igitur repulſa cum utero veſica, quo
" menſe toto decubuit, ſede ſua conſtitit. Surgenti autem
" relapſa eſt : nempe laxari jumdudum conſuetis ejus appen-
" diculis, & ſolito ſtercorum duriſſimorum pondere peſſum
" euntibus. Atqui vel ſic habita non ſegniter tamen nego-
" tia domeſtica, hoſpitalaris per quinquennium poſtea, ver-
" ſabat, ſubligaculo ad id idoneo utens.

Obſervanda

Obſervanda ad hanc hiſtoriam ſecundam duo notabilia.

"HIC vides (lector) diu ante caſum veſicæ ex ejuſdem
" corpore pertuſo calculos ſolitos fuiſſe tranſpene-
" trare in inteſtinum princeps, qui una cum ſcibalis dejicie-
" bantur. Poſt lapſum vero, idem corpus internum ſec-
" tum fuiſſe antrorſum, ſic ut undecim calculi quos diu trac-
" tavi eo orificio exempti fuerint. Jam mihi hoc conſidera.
" Id ſi patitur veſica etiam parte ſui interna vel foras uſque
" propendente, quid non ſperabit eadem ſana à bene admi-
" niſtrata ſectione veſicali hypogaſtrica, vel uterus ipſe ab
" inciſione Cæſarea?

Tertium παράδειγμα ex undecima hiſtoria de calculis humanis Joannis Centmani medici Germani.

"ANNO Dom. 1558. Conradus à Bernheim in expedi-
" tione Philippi Hiſpaniarum regis contra Henri-
" cum 2. Regem Gallorum eques conſcriptus, á commili-
" tone ſauciatus fuit ſphærula tormentaria, quæ ex lamina
" chalybea byrſam pulvere bombardico, & globulis plum-
" beis plenam tegente verſus abdomen reſiliens, palmi infra
" umbilicum ſpatio, intra corpus penetrans, & veſicam

 " vulnerans

" vulnerans in eadem reſtitit (impetu videlicet ejus jam frac-
" to in primo ad eam laminam byrſæ ferream afflictu) In
" imo ventre non longè à pectine ſauciatum fuiſſe oportuit,
" etiam ſi fortè progaſtor fuiſſet. Inde Lipſiam ad chirur-
" gos pene exanimis perlatus, ab eiſque ob deprehenſam in-
" ter percunctandum obligandumque infigniter læſæ veſicæ
" plagam (ex Hippo. lib. 6. Aphoriſ. 18. prognoſi) deplo-
" ratus, Torgam domum ſuam advehi voluit, ubi ab eodem
" ſummæ eruditionis medico Centmano Leonardum Wol-
" ciam chirurgum adhibente curari cœptus eſt, qui laxatis
" plagæ vinculis periculum ut priores agnoſcens, ei tanquam
" deplorato ſuam operam denegabat. Victus tamen ægri ac
" medici miſericordis precibus ſtudioſè vulnus religat:
" (quod opinor ſutura quæ dicitur ſicca fieri debuit) ſubſtan-
" tiæ autem cutaneæ, & carneæ ab ictu proximè inflicto (ut
" illis mos eſt) uſtulatæ, & contuſæ, ac proinde ſuppuratæ
" glutinoſa quædam materies cum urinis illac ſtillantibus
" permixta, circumcirca in vulnere adhæſerat: quod fieri
" debuit non tantum arenulas faciente materia pituitoſa, &
" arenulis ipſis ibi hærentibus, ſed etiam pure, atque adco
" ſubſtantia quadam læſæ veſicæ cum urina per vulnus emiſ-
" ſa illic retentis, & carni renaſcenti concreſcentibus. Quin-
" que enim jam ab eo ictu ſeptimanis putredine ſublata, &
" amplitudine vulneris decreſcente calculus inſtrumento chi-
" rurgico ex vulnere detractus eſt, quem tophaceum, &
" tranſverſi digiti craſſitie latum circumveſtiebat ambuſtæ
" cujuſdam quaſi cutis ſpecies, duarum ſtipularum ſpiſſitu-
" dinem habens. Hoc detracto, facta vulneris ampliati-

" one, & repurgata à ſordibus, arenulis, viſcoſitate, ſanie,
" & aliis quæ cum globo plumbeo ab acrimonia lotii con-
" ſumpto ingreſſa ſupererant, quæque naturale veſicæ orifi-
" cium diu obſtruxerant, vulnus per quod duodecim ſepti-
" manis (quod hic attente notari velim) urina defluxerat,
" tandem perſanatum eſt, idque tam breviter pro natura &
" tempore vulneris, & partium ſauciatarum, tamque per-
" fecte, ut ambulanti, equitanti, vecto, nihil obſtaret; duc-
" taque paulo poſt uxore proſpere ſemper degere perſtiterit.

Aliud obſervandum in ſectorum vulgari modo cadaveribus hiſtoriæ vim habens.

" HUC referendum eſt, quod ſemel à me obſervatum
" memini, & à doctis aliquot (quorum unus ex
" profeſſo inſignis hac in urbe erat cyſtotomus) ea de re à
" me interrogatis fando accepi, aſſerentibus uno ore omni-
" bus ſe diſſecuiſſe aliquot non modo jam adoleſcentum in
" infantia ante ſectorum, ſed etiam provectorum in adoleſ-
" centia cyſtotomiam expertorum cadavera, in quibus cica-
" tricis in veſica jam olim ſecta obductæ veſtigium longè ad
" membranam uſque veſicæ interioris partem porrigi con-
" ſpicue videbatur. Neque id mirum. Quî enim è tantulis
" veſicularum corpuſculis tantos lapides educi poſſe credibi-
" le eſt, quantos ibi congeri potuiſſe obſtupeſcimus, ſine
" ſectione aut dilaniatu partis non mediocris veſiculæ inte-
" rioris?

" rioris? cujus ſingulare collum non ſit veriſimile tanto ori-
" ficio patere poſſe, quanto ad tranſmittendum ingentem
" calculum neceſſario opus eſſe videtur, quin bona pars
" membranei ejus corporis ſimul ante confecta fuerit.

Alia ratio pro indemni hypogaſtricæ cyſtotomias opere, contra membranoſæ veſicarum partis meticuloſos ſectores, dato illis non debere lædi & exauctario probato membraneum veſicæ corpus in eo non ſauciari.

" JAM vero mea me in iſtos panoplia exarmans ipſiſſimis
" eorum telis inſtructus in arenam deſcendo, eis pro-
" digè indulgens, quod modo pernegabam. Nempe veſi-
" cam ſola ſui carnea parte, & duntaxat juxta ejus colli
" principium tuto ſecari poſſe. Qua in re ſi id fieri in hac
" ſectione hypogaſtrica dixero, opus novum mihi ab iſtis
" nunciatum iri animo cerno: ſed de litis victoria ſecurus
" eſſe mihi videor.

" Duo igitur hic nova, ſed veriſſima propono. Prius
" eſt ſectionem hypogaſtricam (ubi veſica eo quo docebi-
" mus modo ſupra os pectinis ſurrecta erit) non fieri in par-
" te ejus valde interna, & membranea ad ejus ſcilicet fun-
" dum; ſed in tam ferè vicina ejus collo parte (ſuperne
" tamen & antrorſum pubem verſus ſpectante) quam fieri
" jamdudum ab iſtis ſolet, per petinæum inferne, retror-

" ſum,

" ſum, & inteſtina verſus, idque intacto à nobis peritonæi,
" (quod hactenus nulli innotuerat) corpore præcipuo, quod
" ipſum tamen in eorum per perinæum utraque ſectione vul-
" neratur. Nec enim aliter fieri poteſt, quin pars ejus peri-
" tonæi eo uſque delati ſecetur, lacereturque ab illis, ſi adi-
" gatur profunde ſectio: quæ rurſus ſi minus alte penetrat,
" tunc ſphincteri veſicali fit vis, eáque tanta, ut licet ulcus
" in aliquibus coeat, tamen inducta in multis magna, dura-
" que cicatrix, ſphincterem arctè claudi prohibet, perpetu-
" um lotii per penem ſtillicidium inducens. Si autem vul-
" nus curari nequeat, & cicatrice bene jungi, tunc urina per
" id guttatim in bracchas defluet, cujus moleſtiæ periculo
" noſtra cyſtotomia caret. Poſterius eſt, quod is locus
" (quem in veſica diſtentiſſima ad ejus diſtentionis à nobis
" artificioſè procuratæ diſtentiſſimum uſque tumorem ſe-
" camus, quique inter peritonæi veſicæ ſubjecti præcipuum
" corpus, & os pectinis intermedius eſt, bonaque ſui parte
" venientem ex oſſe pubis ad veſicam membranam habet, ac
" ibi dilatatur) tam propinquus eſt veſicali collo (ſed parte
" ſui ſupera) quam alius ille inferior ad perinæum, ut ocu-
" lo, digitoque perſæpe notavimus, nunquam aliter ſe ha-
" bere experti: quæ cauſa, ambo loca eatenus æque conſo-
" lidabilia facit (utraque enim pariter carnea ſunt) ſed hy-
" pogaſtricus eo facilius ſolideſcit, quo minus eò ruunt lotia,
" lotiorumque ſordes, & pus ex ulcere manans. Sed iis
" ſordibus in noſtra ſectione intactus veſicæ ſphincter per
" colem exitum liberum pro ægri arbitrio patefacit, quibus
" moleſtiis carere non poteſt perinæi ſectio: ad quas inſu-

" per

" per in vulgaribus ſectionibus alia ex aliis naſcentia pericu-
" la accedunt, ex vicinis partibus. Nempe ob viciniam
" recti inteſtini, duris recrementis ibi retineri ſolitis ſæpe
" gravati, aut ab iiſdem perliquidis fatigati, vel putribus pu-
" treſcentis, condylomatiſque duris & tumentibus obſeſſi,
" vel hæmorrhoidibus cum vel ſine ulcere intus, aut foris,
" vel utrobique non raro occupati, ut de proſtatis virilibus
" aut uteri fœminei ad innumeros morbos levi occaſione
" obnoxii collo taceam, quarum partium lædendarum metu
" ſectio noſtra vacat.

Nota.

" Eædem rationes huic noſtræ ſectioni non tantum in cal-
" culo, ſed etiam in abſolutæ, & alioqui lethalis iſchuriæ
" curatione favent, ſive ea ſit à calculo, ſive à pituita, aut
" renali pure, ſive à ſphincteris aut penis tumefactorum in-
" flammatione, aut obſtructione intra uretram hyperſarco-
" rica, modo ut tempeſtive, ſolerter, & viribus integris ad-
" hibeatur.

Qua ratione ad hypogaſtricam cyſtotomiam tuto, & quamminimum ſieri poteſt dolorificè obeundam chirurgus ſe exercere, ſine calumniæ metu, & ſubjecti ad hoc ſerio adhibendi periculo poſſit, & debeat.

"CUM ominum hominum, ſed præcipuè popularium
" amicorumque, ſocietatem juvare ſit humanum,
" eorundem verò etiam exterorum & inimicorum amiciti-
" am, utilitatemque procurare Chriſtianum, humani Chri-
" anique hominis, ſed maximè medici partes erunt, om-
" nium ſanitatem (quæ ut vitæ condimentum atque adeo
" vita eſt, ita & medicæ artis ſcopus habetur) ſic conſerva-
" re, ut contra eam quocumque in homine aliquid male
" moliri, quovis ſcelere ſit ſceleratius. Unde fit, ut ex
" medicis ii demum homicidii nomine infames haberi de-
" beant, qui ullius etiam publici boni prætextu in privato-
" rum viles (ut loquuntur) animas quaſi ludendo dubia ex-
" perimenta prodigunt. Cujus naturæ cùm videatur eſſe
" hujus novi inventi chirurgema, indigeatque neceſſariò ex-
" perimentis compluribus ante comprobari, quàm publi-
" cum in uſum admittatur; cenſui decere, ut quod ab huma-
" nis humanæ anatomes profeſſoribus, priſcam hominum vi-
" vorum diſſectionem deteſtantibus, fieri ſolet in hominum
" cadaveribus, plerumque etiam in viventium quadrupedum
" corporibus, idem & nos ſequamur in earum partium per-

" quirenda

" quirenda natura, ſitu, & vicinia, inque obſervandis qui
" adiri, aut vitari debent locis, quos vulnerari eſt neceſſe in
" hypogaſtrica hac cyſtotome. Compendioſius eſſet fortaſſe,
" corpora viva ſecare: ſed humana ut diſpendioſum illis,
" ſic ſectoribus inhumanum. Bruta autem licitum quidem,
" ſed in hac re ad noſtram diſciplinam parum conveniens, &
" ad operandi ſumendum exemplum difficile, ne dicam
" haud ſperandum. Neque enim in iis pari poſitura ſedet,
" ut in hominibus veſica: (quod à Veſalio eſt obſervatum)
" cum in nobis naturæ providentia arctius ad os pubis (ſub
" quo ea latet) in quadrupedibus verò laxius hæreat: idque
" meo judicio, propterea quod in nobis ſtantibus & erectis
" ſic aptata ſtabiliri firmius ad os illud debuit, ne propende-
" at. In quadrupedibus verò repandis non poteſt ei oſſi
" non incumbere, & ab eo quaſi ſuſtineri, quod illis com-
" modo eſt. Propterea in eis imus hypogaſtrii locus
" (quem ſecare hic oportet) cum ibi eorum pene ad umbi-
" licum tendente in maribus occupetur, ſectioni veſicali o-
" portunus eſſe non poteſt ut in nobis, quorum penis hypo-
" gaſtrio non affigitur, neque pubem tegit, juxta quam fit
" ſectio. Fortaſſe tamen hoc in quadrupedum fœmellis
" tentari poſſet, ſi per earum uretram veſica impleri poſ-
" ſet, & eam implens humor in illis retineri quouſque ſectio
" facta foret in hypogaſtrio. Ergo ad humana τετυχήμενα
" veniendum, ſed mortua primum. Deinde ad quædam
" viventia ſine culpa & crimine tranſeundum: ea nempe
" (meo judicio) quæ ex ſectione hac tentativa detrimen-
" tum nullum timere, emolumentum autem vel ſanitatis
" recuperandæ,

" recuperandæ, vel vitæ à furcis redimendæ ſperare poſſunt.
" Sunt autem ad certiſſimam hujus operationis tentativæ diſ-
" ciplinam utraque neceſſaria. Quædam enim à mortuis
" ſolis commode cognoſci poſſunt; quædam non niſi à vi-
" vorum ſectione perdiſcuntur. In mortuis enim, quorum
" partes ventris continentes ante veſicæ ſectionem ſuſtuleris,
" conſpicue & nullo damno apparebit, quomodo veſica hu-
" more injecto paulatim tumeſcat, & ſupra os pubis emineat:
" Itemque poſt ſectionem, quæ interius & exterius partes
" bene vel male ſectæ fuerint; ut iis nullo detrimento
" tentatis, & velut præludendo cognitis, ſeriæ in vivis ſecti-
" ones per eadem vel meliora veſtigia tutius & confiden-
" tius poſtea ſuſcipiantur. Hæc enim quæ præſciri oportet
" in mortuis præſecandis nemo in vivis ſcrutari, & diſcere
" poteſt, iis manentibus incolumibus. Sed an vita ob no-
" ſtram hanc ſectionem periclitetur ex ſolo ſucceſſu ſectio-
" nis vivorum apparere poteſt. At ne longius abeas, en tibi
" noſtra aliquot experiendi exempla in mortuis jam ob-
" ſervata, præſentibus hujus urbis chirurgis aliquot experien-
" tibus, & bene doctis.

" Nunc nuper accitis ex illorum numero tribus non poſ-
" tremi nominis, calculoſo cuidam Brittoni dyſenteria mor-
" tuo ſyringe per pudendum veſicam aqua opplevimus tepi-
" da. Imi ventris cutem, adipem, & intermediam duo-
" rum muſculorum ſuccenturiatorum regionem, adacta inde
" deorſum, caute, verſus intimum os pubis, novacula divi-
" dentes, poſtea veſicam trium digitorum latitudine vulne-
" ravimus; immiſſoque in anum digito, calculum inſtar

" ovi

" ovi gallinacei magnum, per vulnus, foras, altera manu in-
" tromiſſa in penem auxiliante, facile expulimus; inventis in
" eodem cadavere mox aperto non modo inteſtinis cum pe-
" ritonæo integro illæſis, ſed etiam intacto eò veſicæ mem-
" branoſæ, & penitioris latere interno, quod inteſtina parte
" poſtica contegit.

" Hoc idem ſimiliter in duobus mare & fœmina à ſuſpen-
" dio adhuc recentibus, ſed non calculoſis, cum iiſdem ip-
" ſis exploravi, peritonæo illo præcipuo etiam intacto: quam-
" vis per plagam immiſiſſemus nucem juglandem in veſi-
" cam, & ex ea illam exemiſſemus per eandem, adjuvante
" digito in anum immiſſo in viro, & intra collum uteri in
" muliere.

" Et iterum in podagrici cujuſdam cadavere cum alio chi-
" rurgo anatomes longe peritiſſimo, ideque valde admirante.

" Iterumque in cujuſdam hydropici, ab hæmorrhagia tan-
" dem mortui cadavere, cui difficulter admodum per pe-
" nem pauculum aquæ vix infuderamus, quæ perparce (ut
" pauca erat) exiit, veſica tamen late vulnerata, & loco hy-
" pogaſtrii prædicto hiante, abunde profecto exitura à tota
" ventris hydropici cavitate, ſi peritonæum illa parte tantil-
" lum læſum fuiſſet, quod proinde contigit prælarge fieri,
" mox ut venter imus explorandus alibi punctim vulnerato
" peritonæo modice conſoſſus fuit.

" Eorum nullis peritonæum læſum deprehendimus: Sed
" veſicam in tumorem ab infuſa aqua attolli nondum oculo
" teſte conſpexeram. Id autem in quodam poſtea conſpi-
" catus ſum, cui Dom. Pinæus chirurgus peritiſſimus, & pro-

 " feſſione

" feſſione cum Dom. Colloto leviro ſuo cyſtotomus, ana-
" tomen ventris ſuis diſcipulis exponens, muſculos gaſtri-
" cos, cum parte peritonæi ſuperiore duntaxat ſuſtulerat,
" inferiore tamen meo rogatu manente adhuc integra.

" Veſicæ enim (HIC AURES ARRIGE LECTOR) orbicu-
" lariter diſtentæ fundum illud ſuperius á ſui medio ſuperi-
" ore (unde urachus incipit, & quò deſcendunt arteriæ um-
" bilicales) habet inde, verſus inteſtina, retrorſum verſus
" uſque ad muſculum ejus ſphincterem & ſubjectum peri-
" næum, corpus præcipuum peritonæi ſibi valide adnexum,
" quod ne attingimus quidem. [Eæ autem arteriæ (quate-
" nus arteriæ) in jam natis nobis otioſæ ſunt, ſed tamen
" adhuc valde utiles quatenus in membraneam quandam
" duritiem cum uracho degenerant peritonæi firmitatem
" ima illa parte adjuvantes.] Altera autem dimidia ejuſdem
" veſicæ pars antrorſum ab eodem urachi initio verſus pu-
" bem (quicum nobis futura res eſt) veſtitur ſuperne mem-
" brana veniente ab oſſe pubis, cui per eam adnectitur, non
" autem ut putant per præcipuum illud peritonæi corpus,
" ſic ut ea parte veſica videatur eſſe, & ſit extra peritonæum,
" & conſtituere quartum quendam exiguum ventrem.
" Quod ſi quis pervicacior eam membranam peritonæi eſſe
" portionem contendat (licet præter ocularem ejus partis
" ſenſum ſuperius illud memoratæ hydropici cadaveris inci-
" ſuræ nihil aquæ effundentis paradigma illum erroris mani-
" feſti coarguat) ſit volo peritonæi quædam productio, ſed
" exigua, & forte talis qualem illud oſſibus quibuſdam, at-
" que adeo hepati, lieni, renibus, inteſtinis, obiter diſtri-

" buit:

" buit; sed magis extensilis, membranæque ossi pubis pe-
" rioſticæ confusa: inter quas anticas, & posticas vesicæ
" partes cum ea repletissima est, tunc quatuor aut quinque,
" & amplius digitorum spatio à seipsis postica & antica vesi-
" cæ latera distant; sic ut ob id non periclitetur intestinum,
" sed neque peritonæum ipsum lædi à novaculæ anteriorem
" vesicæ partem spectantis cuspide, sed neque vesicæ ipsius
" posterior facies intestinis contigua, & peritonæo inferne
" vestita. Hæc in cadaveribus solis perdisci possunt, & de-
" bent, cum scitu pernecessaria sint.

" Verum, sitne ea etiam ipsa quam designamus pars in-
" terna & externa lethalis necne, nondum satis testatum ar-
" bitror, sed id in vivis duntaxat experiri licet. Hoc sine
" calumnia & crimine, in alterutris duorum noscere poteri-
" mus: mendicis nempe calculosis vitam morte miseriorem
" præ dolore viventibus, & cum hac ope egeant à nullo
" operatore præ inopia adjutis. (In iis enim hoc per hypo-
" thesin anceps remedium experiri, quàm nullum præstat.)
" Aut in iis, qui ob crimen morti adjudicati sunt, impe-
" trata illis à principibus vitæ gratia. Regum enim est (ut
" ait Gal. 11 cap. lib. 3. de facult. simpl. med.) ea experimen-
" ta suo meri imperii jure elargiri. Si calculosi erunt, me-
" lius cum cystotomo omni ex parte opus in eis omne absol-
" vetur, nec solam tentativam (ut vocant) aggrediente
" agetur: sin minus, etiam tunc perdisci poterit lethalis sit
" necne sectio.

" Modus autem talia experimenta tutò agendi nobis hic
" proponetur triplex.

" Sed in unoquoque horum vesicam impleri volo. Est
" enim necessaria quædam operationis hujus tutæ regula. At
" ejus implendæ modus triplex, & instrumenta quibus im-
" pletur varia. In duobus enim primis arte per consimilem
" syringem impletur, sed non prorsus similibus catheteribus
" aptandam, ut dicetur suo loco. In tertia vero id à natu-
" ra expectabitur; si arte per alterutrum duorum modorum
" fieri non possit, cui ars quoque auxilium ad id afferet.

" Quod ad primum ergo attinet, Æger jacere meo qui-
" dem judicio supinus debet. Sic enim à sectionis futuræ
" anteriore loco deorsum tunc retrocedent intestina, & à
" vesicæ collo ad fundum tunc declive, urina, vel injectio,
" & calculus (si quis inerit) confluent, intestinaque à se
" compressa procul à loco incidendo utiliter removebunt.
" Hoc apparet in hernioſis, quorum stantium ramex intesti-
" nalis antrorsum protuberat, sed intestina inde recedunt
" eo tumore ultro detumescente mox ut in dorsum recum-
" bunt; & in ischuricis à calculo vesicæ sphincterem obtu-
" rante, quo inde remoto sanatio. Nam ut inquit, in Co-
" acis Hippocrates [Calculosi, si ita figurentur, ut lapis ad uri-
" narium meatum non delabatur, facile mejunt.] Idcirco
" Gal. primo de locis affect. vult eos sic componi, ut lapis
" succusso corpore emotus ex eo loco (tunc eminentiore)
" versus fundum (tunc declive) sua gravitate descendat,
" detque lotio mox exitum viam, coadjuvante manus ad ve-
" sicam compressione. Ne tamen hic lotium effluat caven-
" dum est, quod penis compressione fiet. Sic super lectum,
" mensam, aut scamnum, jacenti, & brachia, crura ac

" tibias

" tibias (ut vulgo ſolet) faſciis vincta habenti, veſica hordei
" aqua, aut lacte, aut vulnerario decocto per argenteum ſi-
" phonem pyxidi clyſtericæ aptatum & peni immiſſum, in
" eam uſque penitus injecto, quam fieri ampliſſime poteſt
" diſtendi debet: (quod per imi ventris meteoriſmum cog-
" noſcetur:) utque ea non refluant, penis vel manu ſervi
" ſtringi, vel molliculo faſciæ xylinæ, aut canabaceæ ſtuppæ
" nexu comprimi tamdiu debet, dum immiſſus humor foras
" per vulnus mox infligendum aliquanto poſt modice exili-
" re cœperit. Hoc in viris. Sed injectum mulieribus hu-
" morem ſiſtere eo duntaxat modo licebit, quo indita ene-
" mata ſiſtere ſolemus, ſtuppeos floccos podici apprimendo.
" Quod ſi per ſiphonem humori in veſicam ingreſſus neutris
" pateat, tunc fœmina in dorſum jacente, & urinam conti-
" nere juſſa; ſed viro reſupinato, & colem vinculo molli
" conſtrictum habente; differenda tamdiu ſectio erit, dum
" lotio ſtillatim è renibus fluente, veſica intumuiſſe videatur,
" ut in iſchuria ſolet. Sed hoc ad tertium modum
" pertinet implendæ veſicæ. Succedit ergo ut de locis inci-
" dendis, & incidentibus inſtrumentis agamus. Locus du-
" plex eſt, exterior, & interior. Ille cutem, & ſubjectum
" adipem in propinqua oſſis pubis parte continet. Hic in
" regione eadem medius ſubeſt inter duos muſculos rectos,
" ima eorum parte, aut potius breves illos eis ſubſidiarios,
" ſub quibus latet membrana ab oſſe pubis procedens, &
" cum peritonæi fortaſſe (ut hoc licet invitus donem) per-
" tenui portiuncula, ſimul confuſa, inde ad veſicæ cui adhæ-
" ret fundum adiens, ubi ſcilicet urachus explantatur (ut

" dictum

" dictum eſt) ſe cum veſicæ parte antica tunc dum impletur
" ample dilatans. Rectorum porro muſculorum fines (ſic
" Galeno crediti, Veſalio autem melius principia) ibi ab in-
" vicem parum diſcedentes, in unum ad mediam pubem ſæpe
" non coeunt, ſed ad ſuum quiſque ejus oſſis latus deflec-
" tunt ; ſic ut eatenus ibi ſectio tutius fiat. Super eos eſt ad-
" eps, & ſuper adipem cutis, quæ novacula incidi debet á
" pectine ſurſum verſus inciſione longa trium quatuorve di-
" gitorum ; deinde adeps qui inſenſilis eſt ; ac poſtea regio
" illa inter ſuccenturiales muſculos intermedia ; idque caute.
" Poſterior autem (qui internus locus eſt) ſecandus adhuc
" artificioſius eſt, adacta quamproxime os illud pubis cuſpide
" novaculæ falcatæ cujus poſtea figuram damus, idque non
" recto impulſu (quod vocant Gallice *de droict eſtoc*) aut
" ſurſum, ſed aliquantulum deorſum, nempe verſus veſicæ
" collum illud ſuperius, quod inde non longe abeſt, intacto
" tamen eo collo atque adeo oſſe ; idque foramine valde an-
" guſto, (ne injectio largiter effluat) ſed tamen ſatis patente
" ut alia novacula lenticularis intromitti poſſit, quæ falcata
" eſt, non acuminata ut prior, ſed in cuſpide lenticulata, &
" hebes, apprime tamen in acie ſua incidens, quæ in eam pla-
" gulam mox ſolertiſſime immitti debebit, inciſionem fieri
" cœptam mox abſolutura. Inde acies ejus media ſurſum
" verſus ducta dividet, providendo ne quid intrò impellen-
" do convulneretur. Quocirca hic tres novaculæ in promp-
" tu haberi debebunt: Una qualis eſt barbas tondentium,
" quæ cuti & adipi ſecandis conveniet: Altera curva, &
" non dichotomos (id eſt utrobique ſecans) verum parte

" ſui

" ſui gibba in dorſo hebes, qua parte ſurſum ſpectabit, ſed
" in ima parte ſecans, dividendæ ſcilicet illi mediæ mem-
" branæ veſicali & veſicæ (ut diximus) ſic bene conveniens,
" ſed quæ alte adigi non debet, locum duntaxat præparatura
" tertiæ inciſionem incœptam perfecturæ. Hæc tertia etiam
" falcata erit, ſed non acuta, ne pungat veſicam interius
" aut offendat aliquod inteſtinum, ſed ad cuſpidem lenticu-
" lata, quales ſunt cultri mulierum, quæ in emundandis o-
" maſis inteſtina findunt; aut ſaltem ibidem eſto latiuſcu-
" la, ſed hebes, & obtuſa, in acie tamen exquiſite incidens.
" Tunc à pube ſurſum verſus inciſio duorum, aut trium
" (plus minus) digitorum longitudinem habens ducetur:
" & vacuari permiſſo liquore, tunc digito alterutrius ma-
" nus in anum viris, aut in uteri collum fœminis immiſſo,
" calculus ei occurrens ad vulneris os ſubmovebitur; & al-
" terius manus digitis duobus excipietur, aut accommodato
" ad id forcipe præhendetur, eximeturque. Ubi ſi alii la-
" pilli vel arenæ eſſe deprehendentur, cochleari ad id com-
" parato excipientur, aut vulſella ſi grandiuſculi ſint, ſive
" recurvo forcipe detrahentur, idque perfacile: Omnes
" enim ibi convulneratæ partes dilatari quammaxime poſ-
" ſunt, certe vero multo facilius, & amplius, quàm perinæi
" regio ab aliis ſecari ſolita; ſic ut ab earum diffractione in
" eruendo calculo timendum non ſit, ad quod opus habent
" dilatatorio illo ſuo mirum in modum exhorrendo. Iis
" peractis penis ſolvetur, & in eum ſi opus eſt argenteus ſi-
" phunculus mittetur, ibique ſi placet ſinetur (ut fit ab aliis
" ſectoribus) nempe ut lotio, & ulceris (quo calculoſi vix

" carent)

" carent) puri, ac plagæ recentis cruori ſanieique (quæ duo
" vix multa hic eſſe poſſunt) via per eum pateat. In iis
" autem omnia eſſe videntur. Neque enim valde gaſtrora-
" phe opus eſſe videbitur, ſi cruribus ut fit paulum ad ſe ad-
" ductis colligatiſque, ſupinus æger immotus conquieſcat.
" Labra enim ulcerum ſat ſibi mutuò adhærebunt. Quod
" ſi forte ibi tunc ramex (quod non metuitur) reſtaret,
" perizoma ei malo ſatisfaceret. Interim utendum erit
" victu tenui, & ſiccante: item clyſteribus magis frequen-
" tibus, quam amplis, ſed ad plagas medicandas facienti-
" bus. Hactenus de primo modo. Secundus, hic eſto ab
" eo primo (quod ad inciſoria inſtrumenta pertinet) non
" diverſus, ſed aliud genus catheteris habens, qui unus &
" idem utilis erit implendæ veſicæ (quia ut ſuperior fiſtulo-
" ſus eſt, attamen recurvus qua parte in veſicam recipitur)
" & eidem ſuſtinendæ (quatenus validus) ut ſcilicet excipi-
" at ictum novaculæ veſicam incidentis in hypogaſtrio, ſicut
" in Marianiſtarum operationibus eandem excipit in peri-
" næo; debetque talis eſſe, quali & ipſi uruntur, hoc excep-
" to, quod cavus & fiſtuloſus eſt, cum illorum catheter ſit
" ſolidus. Sed ne cavitas in noſtro hoc illi ſuam firmitatem
" auferat, mox ut aqua aut decoctum injectum eſt, in eum
" imittitur virga argentea illum roborans, & injectionem
" exire prohibitura: quem catheterem, ut etiam fiſtulam,
" non ex ſolo argento (utpote mollioris materiæ) ſed ex eo
" fieri debet, cui artifex tertiam (aut circiter) partem cupri
" miſcuerit. Sic enim validior futurus eſt (cum converſus
" fuerit verſus imam partem ventris incidendi) ad veſicam
" ſuſtinendam

" ſuſtinendam in operatione. Fiſtuloſa autem ea ſinuoſitas,
" in quam mox ab injectione mittitur virga, non poteſt per-
" tinere ultra principium curvaturæ veſicam ingredientis,
" ubi eſt foramen, quo exit in veſicam miſſa injectio: Sed in
" reliqua parte catheteris, ubi ſcilicet recurvus eſt, dorſum
" illius curvaturæ habet alveum exculptum extrinſecus, ut
" excipiat novaculam, eamque (ne quoquam evariet) diri-
" gat, ubi prius ſublatione ſua indicaverit locum inciſionis
" futuræ in hypogaſtrio, ut ſolent Marianiſtæ in perinæo
" ſupra id dorſum ſuam inciſionem ducentes. Huic autem
" ſic aptatur ſyrinx decocto ſupradicto plena, ut ſuperius
" dictum eſt debere fieri in modo priore. Quod decoctum,
" ne mox exeat virga ſupradicta, ſtatim intrudi debet, ha-
" bens in ſui poſteriore parte ſtuppas circumvolutas impedi-
" turas exitum injecti decocti.

" Tertius modus erit, ut ſi veſicæ repletio nimium tædi-
" oſa, laborioſa, aut deſperanda fuerit, ne alterutro aut
" utroque modo ſuperiore uſurpetur, tertius hic modus lo-
" cum habeat.

" Sinatur veſica per ſeipſam impleri: (nam id eſt ſemper
" neceſſe) idque fiet non meiendo, ſed retinendo lotium
" per biduum, aut quouſque veſica ſic appareat oculo &
" manui extrinſecus tumere, ut fit in iſchuria; ad quod
" neceſſe erit mollicule penem ligare, & ſupino recubitu
" deſidere, atque uti potibus diureticis, non tamen acribus,
" ſed maxime aquis vel Spadenſibus Leodienſium, vel Po-
" guenſibus Nivernenſium, aut vino albo cum decocto ra-
" dicum diureticarum, & ſeminis lithoſpermi contuſi. Illæ

" autem aquæ præter id quod urinas ad veſicam ducent,
" vindicabunt partes ſecandas ab inflammatione. Quam
" in rem is qui hanc cyſtotomiam ex profeſſo exercere
" volet, eas aquas accurate in vitreis lagenis fideliter obtu-
" ratis aſſervatas ſemper in promptu habere ſtudebit. Hac-
" tenus de his. Cæterum ea demum quæ in cadaveribus
" expertus ſum, & qua potui ſedulitate in vivis tuto facien-
" da meditatus, bona fide lectori proponere volui, opera-
" tionum talium in vivis obſervandarum exempla daturus,
" ſi quis Irus calculoſus ſe hactenus obtuliſſet, aut niſi la-
" mentabile Regis Henrici fatum recens nobis eam anſam
" de manibus extorſiſſet, qui quatuor aut ſi opus foret plu-
" ribus ſuſpendio adjudicatis reis vitam me impetrante in-
" dulſerat, ſi ab eo opere noſtro ſoſpites evaſiſſent. Sed
" hic prætermitti nolui, quod ad implendam veſicam attinet
" decocta caloris eſſe debere ſuavis. Nam ut inquit Hip-
" pocrates aphor. 20. lib. 5. frigidum ulceribus infeſtum,
" quæ vix unquam à veſica calculoſa abſunt: ob idque
" eam tunc flatu diſtendi nolim, ut quibuſdam placet, tum
" ne frigore algeat, tum verò ne primo quoque novaculæ
" ictu ſauciata veſica, ventus evolet. Tunc enim flacceſ-
" cente promptius, quam ſi humore injecto aut lotio ten-
" deretur veſica, accideret ut ea mox inciſa reciperet ſe con-
" feſtim ſub os pubis, ubi prius latebat, & ita facile ac tu-
" tò operandi occaſionem præriperet. Totus enim cardo
" ſecuritatis in eo vertitur, ut ejus inde emotæ globus quam-
" altiſſime eminere poteſt, ſurſum promoveatur. Quod
" non alio quam uno ex ſupradictis tribus modis artificio

 " fieri

" fieri poſſe arbitror, Qui melius, facilius, compendioſi-
" us & tutius commentari ad hoc quidpiam poterit, id bona
" fortuna & ſine invidia ad publicam utilitatem faciat opto.

APPENDIX.

" ATTAMEN ſi nullo iſtorum modorum veſicam impleri
" poſſe cuiquam videretur, quia nempe talia inſtru-
" menta artifex non habet, aut habere non poteſt, vel trac-
" tare neſcit, aut verò quia æger ea pati non ſuſtinet; de-
" ſperanda tamen non eſt hæc hypogaſtrica cyſtotome, ſed
" hoc modo facilior procedet. Sinatur igitur veſica lotio
" quam fieri poteſt plurimo impleri, ligato modice (ut dic-
" tum eſt) pene. Deinde figuretur æger ut moris eſt, &
" proxime os pubis trium plus minus digitorum longitudine
" ſurſum verſus cutis, adepſque, & media muſculorum rec-
" torum regio caute ſecentur, ſic ut ea parte patente, & in-
" teſtinis (ſi qua ibi apparebunt) diſpulſis veſica tunc in ima
" ſui parte anteriori ſecetur. Tunc lotio per plagam effu-
" ſo, digiti duo (index & medius) intra podicem viris, ſed
" in pudendum fœminis inſerentur, qui calculum mox illis
" occurſurum offendentes, illum inferne ſurſum ad pecti-
" nem valde ac valide ſubmovebunt. Tunc nullo negotio
" vel ſine ferramentis lapis aut unus, aut plures (digitis ſub-
" tus protrudentibus) alterius manus digitis eximentur.
" Talis calculi ad epigaſtrium adductio digitorum miniſterio

" facta

" facta, longè facilior, & ægroto tolerabilior eſt, ejuſdem ad
" perinæum detruſione, qua vulgares cyſtotomi utuntur. Nam
" promptius digitis percunctantis calculus ſe offeret, & fa-
" cilius ab inferna parte ſurſum trudi verſus pubem ſic po-
" terit, quam in Guidoniana operatione à ſuperiore & re-
" motiore à digitis parte ſurſum perquiri, prænendi, & inde
" ad perinæum ægrè deprimi valeat. Hoc in quodam Briæ
" viculo factum recenter didici à quodam, qui meæ ſcripti-
" oni credulus id fœliciſſime auſus eſt; quo ne me confer-
" rem hactenus, itinerum pericula obſtiterunt, quibus ceſſan-
" tibus, quid ibi contigerit obſervandum, publicè edere non
" gravabor. Atqui is ſector de implenda lotio aut aliter
" veſica non dicitur fuiſſe ſolicitus: ſic ut inde appareat mi-
" nus periculi in eo opere haberi opinione vulgari. Quod
" ſi digiti operatoris breviores ſint pro calculoſi corpore,
" quàm ut ſubmovendo ſurſum ad pectinem lapidi ſufficiant,
" factitiis ex corio cocto (*Cuir boüilly* vocant) aut argento
" uti poterit, in quos cavos arcte, ac firmiter ſuos ipſius in-
" ſeret, & aptabit; quo tamen is opus non habuit: Cæ-
" tera procedent ut ſuprà.

I had

Had a Copy of the following moſt rare and antient *Theſis*, lately ſent me from *Paris*, by that moſt excellent *Anatomiſt*, Dr. *Winſlow*, one of the Members of the Royal Academy of Sciences; which I dont doubt will be acceptable to the curious Reader.

QUÆSTIO MEDICA.

Quodlibetaneis Diſputationibus manè diſcutienda in Scholis Medicorum die Jovis 13° Decembris 1635. M. NIC. PIETREO M. D. Moderatore.

An, ad extrahendum Calculum, diſſecanda ad Pubem Veſica?

CALCULUS qui veſicam diris divexat cruciatibus, ea diſſecta quamprimum eximendus eſt, omni ætate, quavis anni tempeſtate, poſthabitâ etiam Cœli ratione. Optandum ut atteri & comminui ille poſſet, atque urinæ effluentis impetu exoneretur: at cum nihil extat, quod id præſtare valeat, una veſicæ Sectio calculo laboranti opitulari & ſubvenire poteſt. Propterea Dei hominum ſalutis ſtudioſiſſimi, ſingulari conſilio, uni omnium ani-

 mantium

mantium homini, ex alvi ſinu extat veſica; & tum ſuperiore tum inferiore ſui parte quaſi foras prodit: ut ita expoſita facilè diſſecari poteſt in hominis ſolatium.

Homini duntaxat aperta eſt veſica, Peritonæo eoque duplicato quaſi ſacculo concluditur; unde cæteris viſceribus illæſis, abdominis etiam cavo integro & intacto, cædi tutò in pubem poteſt. Mediâ ſui parte demiſſâ ſubter Pubis oſſa, cervice ſuâ Perinæum attingit, fundo vero, ad Pubem imam ventris partem, elato, ea ipſa Pubis oſſa ſuperat digitos ferè tres, ut Cathetere paululum incurvâ attolli poſſit in Pubem ad Sectionem æquè commodè ac in Perinæo. Venis, ab Hypogaſtrico prodeuntibus perfuſa eſt, plurimis, ut licet ſubſtantia omninò membranoſa ſit, cæſa tamen coeat facilè & ſaneſcat, non cervice potius quam aliâ quâvis ſui parte, nimirum ſanguine ad quaſque diviſas illius partes peræquè appellente eaſque glutini inſtar connectente, præter adipem plurimum qui privatâ & ſuâ conſiſtentiâ non partis cujuſvis frigore concreſcit. Obtenduntur Veſicæ, tum tendines membranoſi muſculorum Abdominis, tum Pyramidales muſculi, qui ad ejus fundum coeunt ut imâ ſuâ parte diſcreti, quaſi deſignant & notant ſectionis locum, ſi fortè diſſecanda in Pubem ſit Veſica.

Diſſecandæ ad Pubem veſicæ & ex eâ calculi eximendi, ratio perfacilis eſt, minimeque operoſa: Chi-

rurgi

rurgi manus in id erudita, ſuis pollens viribus hoc opus omne adminiſtrat & peragit.

Ægro ſupino jacente, diductis cruribus, eiſque vinculo devinctis, Cathetere leviter ab imâ inflexâ & averſâ ſui parte eâque incurvâ, attollitur veſica, & cultello exactâ acie diſſecatur ad fundum uſque amplo & patente vulnere; tum amovetur Catheter, & chirurgi manus alternis digitis quaſi oculatis in vulnus inditis, luſtrantur veſicæ regiones omnes, & deprehenſus calculus nullo negotio properè & celeriter extrahitur. Si veſicæ ille adhæreat, eliſo digitis glutine, nullâ vi avellitur; quin ſi enata membrana ſinum veſicæ faciat geminum, & calculum contineat, ea tenui forcipis ictu diſciſſa, membrana digitis etiam educitur, atque hac arte nec divellitur diſcerpiturve veſica, nec omninò aut minimum contundetur, quod in vulneribus veſicæ potiſſimum eſt. Diſciſſa tantum veſica levioris momenti vulnus habetur & eſt. In urinæ anguſtiis quotuſquiſque diſſectus fuit nullo vitæ diſcrimine? At cum vulnere ſi colliſa fuerit veſica deterius jam vulnus eſt & ſæpius lethale. Ut veſicæ cæſæ Chirurgi calculi extractionem molientis præcipua laus ſit, non ſolum curare ut expedita ſit ſectio & dolore minimo peragatur, ſed imprimis ſtudere ut nullo periculo, nullo veſicæ damno, calculus educatur; geminum illud eſt, alterum dilaceratio, alterum contuſio: alterutrum vel utrumque ſi affuerit, conſequetur inflammatio brevi extincturа tenuem veſicæ calorem. Veſica ad Pubem inciſa, ſi plu-

res ſubſint calculi, omnes extrahentur, nec ullus ſupereſſe poterit. Sanguinis grumi qui dum morantur graviſſimos invehunt affectus, una cum urinâ per ductum urinarium facile elabentur. Vulnus urinâ non præluetur, quod ad veſicæ diſciſſæ unitionem accelerandam facit plurimum, id vero ſubjectum oculis eſt, ut & illius & veſicæ vulneratæ Chyrurgo omnis explorata futura ſit ratio.

Liberabitur æger tubulo illo qui in vulnus quamprimum immitti ſolet, turandâ etiam omni prælongâ quæ duo cum adhibentur dolorem movent non levem; Diatheſin inflammatoriam fovent; quietem ferè omnem adimunt: nec ſordebit illâ immundâ illuvie, namque & alvi onus pelvi & urina matulâ commodè excipietur. licebit & mutare ſitum modoque in dextrum modo in ſiniſtrum latus, gratâ vice decumbere. Uno verbo curatio longè facilior, & certior multò ſanationis ſpes erit.

Ergo, ad extrahendum calculum diſſecanda ad Pubem Veſica.

Reponebat Lutetiæ, Petrus *le* Mercier *Caſtrotheſdorie,*
A. R. S. H. 1635.

Domini

Domini Doctores Diſputaturi,

M. Petrus Yvelin. *M.* Franc. *le* Vignon.
M. Petrus Richer. *M.* Joannes *du* Cledat.
M. Mathurinus Denyan. *M.* Claud. Quiquebeus.
M. Claud. Gervais.
M. Franc. Gaenout.
M. Joannes Morlet.

This very *Theſis* is mention'd in the fourth Century of *Bartholin's* Epiſtles, in a Letter from *Guido Patin*, dated at *Paris*, in the Year 1662. "*De Secanda ad* "*Pubem Veſica, Theſin compoſuit in Scholis noſtris olim* "*agitatam, Vir maximus ac inſignis doctrinæ, Mag.* Ni- "colaus Pietreus, *quam veluti Vitioſam & multis nævis* "*ac erroribus Anatomicis refertam graviter improbabat*, "Jo. Riolanus, Pietrei *ex ſorore Nepos.*

Whence it is evident, that it's no new Thing for ſome Sort of People vigorouſly and zealouſly to oppoſe all Innovations in Surgery, as well as in——— though never ſo much more rational and advantageous to Mankind.

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ERRATA.

PAGE 6. line 3. ?. p. 10. laſt l. read *recovered.* p. 14. dele, *.* p. 15. l. 19. r. *Fig.* 11. p. 40. l. 10. r. *medendum.* l. 23. r. *ſauciatum.* p. 41. l. 7. r. *A. T.* p. 42. l. 17. r. *Amyand.* p. 49. l. 3. r. *are to hold the Oſſa Ilia.* p. 50. l. 3. r. *Syringe.* p. 55. l. 17. r. *Tab.* 5. p. 63. l. 8. r. *Chirurgorum.* p. 67. l. 20. r. *ever.* p. 68. l. 7. dele *of.* p. 73. l. 13. r. *Mariamus.* p. 74. l. 6. r. *inpoſterum.* p. 124. l. 9. r. *infunda.*

ADVERTISEMENT.

THERE will be publiſhed in a ſhort Time, a *Treatiſe*, intituled, *Hernia's in Men, and Procidentia's in Women, anatomically explained: the Parts fallen down, in both Sexes, being exactly delineated to the Life.* To which will be added, The *Anatomy* of the Parts cut, dilated, and tore in all the different Methods of extracting a *Stone* out of the human *Bladder*, whither above, or below the *Os Pubis*; read at a Meeting of the *Royal Society*, *January* 13, *An.* 17$\frac{17}{18}$. By Dr. *James Douglas*, Honorary Fellow of the Royal *College* of *Phyſicians*, *London*, and Fellow of the *Royal Society*.